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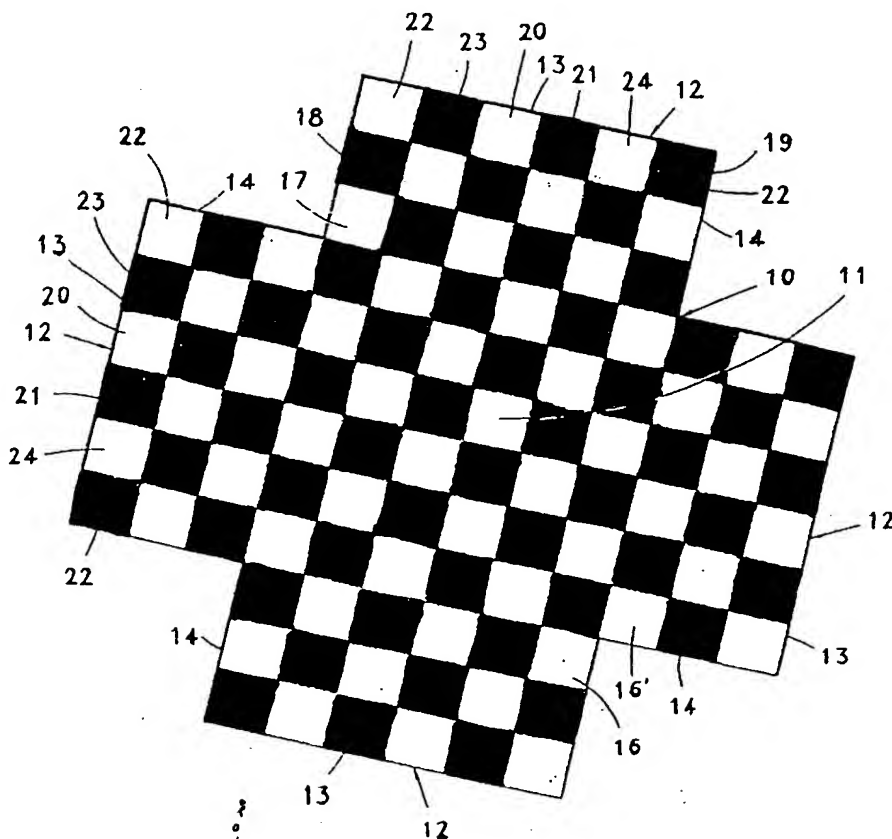
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(54) Title: EDUCATIONAL GAME AND DEVICES FOR PLAYING IT



(57) Abstract: A game, comprising: (i) a cross-shaped board comprising a center of 6x6 cells and four arms, each of which comprises 3x6 cells, disposed with the longer side adjacent to said center, the shorter side being perpendicular to it; (ii) two to four sets of pieces, each of said sets comprising a) first subset of six pieces, two of which are equal to one another while the other four are different from one another and from the aforesaid two, wherein one of said four pieces is designated as the main piece, b) a second subset of six pieces, equal to one another and different from the pieces of said first set, wherein said game is played according to a set of rules described in the specification. Also provided are a board for use in this game and a method for playing this game.

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EDUCATIONAL GAME AND DEVICES FOR PLAYING ITField of the Invention

This invention relates to a novel game, based, to a greater or smaller extent, on the classic game of chess, and which has social and educational values and to an educational method based on such a game. The novel game may reduce the tensions that exist in classic games, increase the satisfaction of winning (against three opponents), reduces the feeling of failure after a loss (their being a partner to the loss), and contributes to strengthen self-reliance and to develop the intelligence. This invention also relates to devices for playing the game and carrying out the method, including a board and, optionally, patterns that define the allowable motions of the pieces of the game.

Background of the Invention

The classic game of chess is played by two players (white and black) each using sixteen pieces, which can be moved over the board comprising eight squares on each side, viz. sixty-four squares, according to well-known rules. The game is now considered an intellectual sport, which can only be played successfully by persons having special intellectual capacities and having acquired a specialized knowledge, based on known variants widely described in a specific literature.

Variations of the classic chess game have been developed and are known. Some of those variations are intended to permit four players to take part in the game. For instance, the so-called Roman Chess involves a board of 10 x 10 squares and four sets of ten chess men each, each near a corner of the board.

Another variant known as Four-Handed Chess uses a cross-shaped board, the center of which is equal to the standard 8 x 8 board and which is provided with four extensions of 3 x 8 squares, with a total of 160 squares. The game is played by four players each having a classic set of 16 chess men. This variant, however, is somewhat cumbersome and for this reason has no significant value in promoting the players' skills. In order to simplify it, in another variant, the four arms comprise only 2 x 8 squares, but this requires specific rules because, by the classic rules, the pawns on the rooklines would be able to capture each other from their starting position.

Other variants are described in The Encyclopedia of Chess Variants by David Pritchard, Games and Puzzles Publications, 1994. However, none of the known variants have the educational values that would be desirable. Further, either they are so different from classic chess that playing them does not prepare beginners to play classic chess, or, while embodying the classic rules of

chess, they are too complicated because of the size of the board and the number of pieces involved in them.

It is therefore a purpose of this invention to provide a novel game that is free of the aforesaid disadvantages.

It is another purpose to provide such a game that is based on the rules of the classic chess game.

It is a further purpose to provide such a game that can be easily played by two, three or four persons and has therefore social and entertainment values.

It is a still further purpose to provide such a game that can be played with a board that is derived from that of the classic chess game (hereinafter "the classic board").

It is a still further purpose to provide such a game that can be played with a board that does not include the entire classic board as a part of it and is therefore less cumbersome.

It is a still further purpose to provide such a game that can be played with the pieces of the classic chess game (hereinafter "the classic pieces") or by different pieces each of which corresponds to a classic piece, by which is meant that it may have a different structure

and shape but has the same function and powers of a classic piece and is subject to the same rules, particularly as to the movements permitted to it.

It is a still further purpose to provide such a game, which in a preferred embodiment is somewhat simplified with respect to the classic chess game, but is sufficiently close to it and particularly applies the same rules, so that it educates the players towards the classic game and helps them acquire the abilities required by it.

It is a still further purpose to provide boards and sets of chess pieces that are adapted for such a game.

It is a still further purpose to provide patterns that are adapted to guide beginners in learning such a game and are equally useful for learning the classic chess game.

It is a still further purpose to provide an educational method that is based on such a game and means for carrying out said method.

It is another purpose to provide a set comprising a base board and a plurality of frames which combine with the base board to create a number of different game boards.

Other purposes and advantages of this invention will appear as the description proceeds.

### Summary of the Invention

The present invention provides a board game, comprising:

- (i) a cross-shaped board comprising a center of 6x6 cells and four arms, each of which comprises 3x6 cells, disposed with the longer side adjacent to said center, the shorter side being perpendicular to it;
- (ii) two to four sets of pieces, each of said sets comprising

- a) a first subset of six pieces, two of which are equal to one another while the other four are different from one another and from the aforesaid two, wherein one of said four pieces is designated as the main piece,

- b) a second subset of six pieces, equal to one another and different from the pieces of said first set,

wherein said game is played according to a set of rules comprising:

- a) each of the aforesaid two to four sets of pieces is arranged, at the start of the game, in one of said four arms, such that the six pieces of said first subset are positioned on the outermost row of said arm in a predetermined succession, and the six pieces of said second subset on the parallel row adjacent to said outermost row,

b) Each piece is assigned with a well-defined movement pattern, according to which said piece is allowed to move over the board;

c) The purpose of the game is to capture at least one of the main pieces, following which the set of pieces to which each said main piece belongs is removed from the board.

As used herein, the term "cell" indicates a repeating geometrical unit of which the board is composed, which geometrical unit may be occupied, at any stage of the game, by not more than one piece of the sets of pieces used in the game. Like in classic chess, the geometrical unit characterizing the board used in the game of the present invention is most preferably in the form of a square.

In its most preferred embodiment, the game according to the present invention is played using a board consisting of 108 cells, each of which being in the form of a square, said 108 squares being arranged in a central squared region and in four rectangular regions, wherein said central region is defined by an array consisting of 6x6 squares, and each of the four rectangular regions is in the form of an array consisting of 6x3 squares, wherein each of said rectangular regions extends parallelly from a side of said central region, with the long dimension of said rectangular region being

contiguous with the side of said central region, and wherein said 108 squares are alternately colored with two different colors, the colored pattern of the board being such that two adjacent squares in any given rank or file are of different colors, thereby preserving the colored pattern of a traditional chess board. The unique board of the invention is most preferably used in combination with two to four sets of chess pieces, each of which comprising a king, a queen, a pair of rooks, a bishop, a knight and six pawns.

The game according to the present invention may be played by either two, three or four opponents. It should be understood that the terms "opponent" and "player", which are used interchangeably in the specification, refer to a person, a group of persons playing in consultation or an appropriately programmed computer.

The board and chess pieces used in the game of the present invention may be provided either in a physical form made of any suitable material, such as wood, plastic, cartoon, glass, metal, etc., or in a virtual form using suitable computer programs, wherein said programs may be situated locally in the computer where the game is being played, or alternatively, wherein the players connect to such a program via the Internet, for example. Furthermore, the game according to the present invention, which is intended for two to four opponents,



may be played in any mode that is acceptable for playing classic chess, such as correspondence game, wherein the opponents communicate their moves to each other by any suitable means (e.g., post or e-mail), or via the Internet, using programs capable of generating the board and the pieces placed thereon in a virtual form. Thus, a method for playing the board game according to the present invention between two to four opponents, using the aforesaid modes of playing, forms another aspect of the invention. Also included within the scope of present invention are processes of organizing tournaments, wherein the competitors play the aforesaid game.

In another embodiment, the game of the invention has the following features:

1 - It is played by two to four players, each having a set of 12 pieces comprising a first subset of six pieces, two of which are equal to one another while the other four are different from one another and from the aforesaid two, and a second subset of six pieces, equal to one another and different from the pieces of said first set.

2 - The aforesaid sets of pieces are arranged, at the start of the game, each on the outermost on two parallel rows, the six pieces of said first subset on one row in a predetermined succession, and the six pieces of said second subset on the other row.

3 - The players make their moves successively in clockwise or counterclockwise order.

4 - One of the pieces of each set is designated as the main piece, and when said main piece is taken, the set of pieces to which it belongs is removed from the board;

5 - Optionally, there is only one winner of the game, and he is the player who succeeds to preserve his main piece.

Preferably, each of the sets of pieces is equal to or corresponding to the classic chess set, except in that the said first subset has only one bishop and one knight, or corresponding pieces, instead of two, and said second subset has only six pawns instead of eight. In such sets, the king is the main piece; therefore, for the sake of convenience, the main piece, no matter what it actually is, will be called hereinafter "the king". The aforesaid sets of pieces are arranged, at the start of the game, each on the outermost two rows of one of the aforesaid arms, according to a predetermined succession that is preferably the same as in the classic chess game, except that more preferably all sets are arranged in the same way and not specularly to one another as in the classic chess game. If the sets are composed of pieces equal to or corresponding to those of the classic game, their succession from right to left is: rook, knight, queen, king, bishop, and rook, as seen

from the viewpoint of the direct opponent. By "direct opponent" is meant the opponent who directly faces the player in question. Of course, the order may be changed, and the position of bishop and knight may be reversed.

Optionally, there is no "check" and no "checkmate", as in the classic game, and instead when a king (or a piece parallel to it) is taken, the player to whom that king belongs exits the game with all his pieces. Also optionally, there is only one winner of the game, and he is the player who succeeds to preserve his king. The game is played by individuals or optionally by couples, and any alliance that may be established between players dissolves at a given stage of the game.

It is permitted, and even desirable, to establish a time limit for each move of each player, thereby rendering the game more lively and educational. Hour glasses may preferably be used for this purpose.

In preferred embodiments, the game of the invention is played on a cross-shaped board, the center of which comprises 6 x 6 squares cells, of any desired colors (though squares alternatively of two different colors, particularly black and white, will be described to facilitate illustration), and four extensions or arms, each of which comprises 3 x 6 squares cells, of any desired colors (though squares alternatively of two

different colors, particularly black and white, will be described to facilitate illustration), disposed with the longer side adjacent the said center, the shorter side being perpendicular to it.

Generally, one piece for each player is defined by the rules of the game, agreed upon by the players, to be the main or essential one. Generally, such piece will be the king of a set of chess pieces, or a piece corresponding to it, and therefore the term "king" will be used hereinafter to mean any main piece. Hereinafter when reference is made to a classic piece, it should be understood that what is said applies to the corresponding piece as well.

The board may have cells that are not squares but polygons or have other shapes, e.g. with curved sides. It will suffice that the cells be arranged in rows in two different, preferably perpendicular, directions, so that they form a board that can be used similarly to a classic board.

The board itself and the sets of pieces, as well as their use for playing and/or learning to play the game, are also aspects of the invention.

A significant advantage of the game of the invention, in its preferred embodiments, is that learning the rules of

chess is a side benefit, and need not be the reason, of the actual playing, though the game of chess is learned through it even by those who had no prior knowledge at all. For many players, in particular children, the fact that the present game is derived from chess has no relevance. Thus in the present game the rules of chess governing the motions of the pieces are kept, but every other parameter can be changed: for instance, the shape of the board, the shape of the pieces, their significance and even the significance of the game.

To facilitate beginners in learning the game, the invention provides a set of cut-out patterns, hereinafter called "motion patterns", each of which defines the motions permitted to the several pieces of the game. These are of great help to beginners in learning the game of the invention, and therefore in preparing for the classic chess game which permits the same motions of the pieces. They constitute a pleasant game as to themselves.

One aspect of the invention is a method of generating a game board required for playing a desired game, which comprises providing a base board, providing a set of frames for masking part of said base board, each of the frames of said set leaving uncovered a part of said base board, and superimposing to said base board the frame of said set that leaves uncovered the part of said base

board defining the intended game board. The device comprising a base board and a set of frames for carrying out said method is also comprised in the invention.

#### Brief Description of the Drawings

In the drawings:

- Fig. 1 is a plan view of a board for playing the game of the invention;
- Fig. 2 is a perspective view of such a board with the sets of pieces of four players arranged in the starting position;
- Fig. 3 shows the board and sets of pieces as they are arranged in Fig. 2, but schematically represented in plane view;
- Figs. 4A to 4F show a set of motion patterns;
- Fig. 5 diagrammatically illustrates the use of the motion patterns;
- Fig. 6 shows the pattern of the board of Fig. 1;
- Figs. 7 and 8 show partial patterns of boards for particular purposes;
- Fig. 9 shows the pattern of a base board having 14 sides, from which all the boards of the several embodiments of the invention may be derived;
- Figs. 10 to 15 show, each, a perspective view of a piece corresponding to a classic piece, use din an embodiment of the invention, and a plan view of the flat components of which said corresponding piece consists;

- Fig. 16 is an example of a board having cells that are not square;
- Fig. 17 schematically illustrates a sand-glass that may be used to time the moves of the game;
- Fig. 18 is a plane view of a cross-shaped frame; and
- Fig. 19 (a) to (c) illustrate in schematic, perspective view how a cross-shaped game board is created by superimposing the frame of Fig. 18 to the base board of Fig. 9.
- Figs. 20 and 21 illustrate a game according to the invention, intended to be played between two opponents..

#### Detailed Description of Preferred Embodiments

As shown in Fig. 1, in a preferred embodiment, the board, generally indicated at 10, comprises a center of 6 x 6 squares 11, alternatively of one of two different colors, which in Fig. 1 are white and black. The board further comprises four arms 12 attached and parallel to the four sides of the center, each having a dimension, herein called the width, equal to the side of the center, viz. of six squares, and another dimension, herein called the depth, of only three squares. The width is indicated in Fig. 1 as 13 and the depth as 14. Therefore each arm comprises three rows. The row adjacent the center will be called "the inner row"; the row most distant from the center will be called "the outer row"; and the row between them will be called "the intermediate row". It is seen that in this embodiment

the squares of the arms as well are alternatively of one of two different colors, and are in such an order that, in the inner row of each arm, each square of one of the two colors is adjacent to a square of the center having the other color. As a result, each square located at an end of an inner row of an arm is adjacent to a square of the same color at an end of the inner row of an adjacent arm. Two such squares are indicated at 16 and 16' in Fig. 1.

As has been said, such a division in squares is not indispensable. What is important is that the board be divided into separate areas, thereby defining repeating geometrical units of which the board is composed, so that the distances between the areas should be the same. Therefore said areas are called herein "cells". The arrangement of the board in different graphics does not change the rules of the game. Therefore, instead of arranging the board in black and white squares, one could arrange it in cells of different shape, e.g. round areas, of any chosen colors or adopt any other geometric form or a form that is not geometrically defined, but is adapted to play thereon the game on condition that the motions of the pieces are subject to the appropriate rules, particularly those of the classic chess game. The distance between the centers of the cells will be established according to the size of the board, the size of the pieces, and the spaces through which they move.



Fig. 16 shows a portion of a board according to an embodiment having curvilinear cells.

Fig. 2 shows in perspective view the board of Fig. 1 on which four sets of classic pieces are arranged in the starting position. It is seen that each set is placed on one of the arms and specifically on the outer and intermediate rows thereof, the pawns occupying the intermediate row. In Fig. 1 the three rows of an arm 12 are indicated as 17, 18 and 19. The pieces are arranged on rows 18 and 19 of each arm, and more precisely, row 18, the intermediate row, is occupied by 6 pawns. The other pieces are arranged on outer row 19, preferably in this way: the queen is on the center white square, indicated in Fig. 1 as 20; the king is placed on the center black square, indicated in Fig. 1 at 21; the two rooks are placed on the end squares, indicated in Fig. 1 at 22. The remaining squares, between the rooks and the king and queen, indicated in Fig. 1 at 23 and 24, are occupied by the bishop and the knight. In Fig. 2, the bishop is at square 23, viz. adjacent to the queen, and the knight is at square 24, viz. adjacent to the king, but while this is a preferred arrangement, the places of the bishop and the knight could be switched without substantially altering the game of the invention. The arrangement of the pieces is diagrammatically shown in Fig. 3 in plane view, the pieces being represented by conventional signs.

Fig. 4 illustrates, a set of motion patterns, each shown inplan and in perspective view, which can be conveniently defined by cardboard or plastic pieces cut out as shown in the figure. In each of them a round space indicates the position of the relevant piece, square spaces indicate final positions and open spaces indicate the areas through which it may move, hereinafter called "corridors". In Fig. 4A, pattern 30 defines the motions of the queen. The position of the queen is shown by round area 31; open corridor 32 indicates that the queen may move on a straight line for any distance; open corridor 33 indicate that the queen may move transversely for any distance. In Fig. 4B, pattern 35 defines the motions of the rook. The position of the rook is shown by the round area 36 and the open corridor 37 indicates that the rook may move in a straight direction for any distance. In Fig. 4C, pattern 40 indicates the motions of the knight. The position of the knight is shown by the round area 41 and its final position by square area 42, indicating that the knight may one first step to the side and then another in the perpendicular direction. In Fig. 4D, pattern 45 defines the motions of the bishop. The position of the bishop is shown by round area 46 and open corridor 47 indicates that the bishop may move sideways for any distance. In Fig. 4E, pattern 48 indicates the motions of the king, its position being

shown by the round area 49 and its final positions by square areas 50. Finally, in Fig. 4F, pattern 52 indicates the motions of the pawn, its starting position being shown by the round area 53, its final positions by square areas 54, and its positions after taking an opponent's piece, by triangular areas 54'. It is obvious that the motion patterns may be placed in any angular position about the position of the piece concerned. The relevant angular positions are four, at right angles to one another. This is exemplified in Fig. 5, in which the broken lines define four corridors 55, 56, 57 and 58, along which a bishop is permitted to move. In Fig. 4D only one such corridor is shown at 47, but the bishop can move along four different such corridors at right angles from one another (as far as permitted by the borders game board) and such corridors are shown in Fig. 4 in broken lines. The patterns can be used separate from the board and the pieces to learn the movements of the several pieces.

There is a preferred limitation to the motion of a pawn after one piece of an opponent has been taken in the opponent's area. The motion must be in the direction of the group (of pieces) perpendicular to the player who took said piece, facing the groups from which the piece was taken.

Every motion pattern, except that relating to the pawns, is bi-directional. That relating to the pawns is uni-directional. The pawn is the only piece the motion of which is limited to a given direction and takes other pieces in a direction different from that of its motion.

Fig. 6 shows the pattern of a board as preferably used for the game of the invention and as illustrated in Fig. 1. However, partial board patterns may be used for various purposes, such as to permit a game to be played by three or two players only, or even for the use of a single player practicing the appropriate motions of the pieces. Two examples of such partial patterns are shown in Figs. 7 and 8. Fig. 9 shows a large board consisting of 14 rows each consisting of 14 square cells. This may be called the base board, and has the property that any game board used in the preferred embodiments of the invention may be derived from it, in the sense that it is a part of it, obtained by canceling the remaining parts. Different game boards can be created by superimposing different frames to said base board. For example, Fig. 18 shows a cross-shaped frame. Fig. 19(a) shows the same frame in perspective view. Fig. 19(b) shows the base board of Fig. 9 in perspective view. Fig. 19(c) shows how a cross-shaped game board is obtained by superimposing the frame of Fig. 19(a) to the base board of Fig. 19(c). In this way, any game board contained in

the base board can be obtained by superimposing a corresponding frame to the base board.

While in the classic chess game "castling" is not permitted under "check", in the present game it is generally permitted, as is natural since the warning "check" may not exist.

In the game of the invention, there is no rule that once a piece has been touched by a player, it must be moved. The player can change his mind as long as his turn has not elapsed and the time assigned to each move, if such has been established, has not ended.

It is desirable to assign a given time period for every move. If so, an hour glass, an example of which is shown at 60 in Fig. 17, can be conveniently used. In it, the sand is enclosed in a flexible, eight-shaped container 61. Two pushbuttons 62 are mounted in the body of the hour glass so that they may slide horizontally. When the waist of the flexible container is open, as seen in detail (A), the sand collects on the bottom half of the hour glass, and when the hour glass is overturned and its waist is reduced to a given width, e.g. by pressing pushbuttons 62 together, the sand flows down from the top to the bottom of the hour glass within a time period depending on said width, as shown in detail (B). Conventional hour glasses, however, could also be used.

Figs. 10, 11, 12, 13, 14 and 15, respectively illustrate pieces according to an embodiment of the invention, which respectively correspond to king, queen, bishop, knight, rook and pawn. In each drawing the corresponding piece is shown in perspective and the elements of which they are composed in this embodiment are shown in plane view in the same figure. The elements can be made of any flat material, for instance a metal or plastic plate or cardboard, cut in the suitable shape and provided wherever necessary, for assembling the various elements together, or by injection molding of plastic matter generating a three-dimensional piece. For instance, the piece 65, corresponding to the king, shown in Fig. 10, is composed of a central element 66 and a base element 67. The two elements are provided with slits 68 and 69 respectively, and can be inserted into said slits to assemble the piece, which in use will rest on the base element 67, the central element 66 being upright. The remaining pieces corresponding to classic pieces, shown in Figs. 11 to 15, are built in the same way, as it is easily understood from the drawings. Each group of players can design and make its own set of corresponding pieces and, particularly in the case of children, this can be entertaining and educational.

As has been said, the board, the sets of pieces and the motion patterns, and their use, are also, as to themselves, aspects of the invention.

The game of the invention, together with the board, the sets of pieces and the motion patterns, may be used as part of an educational process, which comprises causing the persons to be improved by said educational process gradually to learn the game of the invention, to become accustomed to the interpersonal relationship involved in the presence of four players and to acquire therefore social adaptability and behavior, and to evolve, if desired, to the classic chess game and to the professional and social rules attached to it. The educational process of the invention may be carried out as a group process.

The following description refers to a particularly preferred game according to the present invention, which game may be pictorially named "Multiple-Front Chess". The game is most preferably played by two opponents, hereinafter referred to as White and Black.

#### The board

The board used according to this embodiment of the invention is structurally identical to the board described hereinabove in reference to Figure 1, said board consisting of 108 squares, said squares being

arranged in a central squared region and in four rectangular regions, wherein said central region is defined by an array consisting of 6x6 squares, and each of the four rectangular regions is in the form of an array consisting of 6x3 squares, wherein each of said rectangular regions extends parallelly from a side of said central region, with the long dimension of said rectangular region being contiguous with the side of said central region, and wherein said 108 squares are alternately colored with two different colors, the colored pattern of the board being such that two adjacent squares in any given rank or file are of different colors, thereby preserving the colored pattern of a traditional chess board. The rectangular regions are also referred to in the present specification as "arms". It may be appreciated that each arm comprises three rows. The row adjacent the central region will be called "the inner row"; the row most distant from said central will be called "the outer row"; and the row between them will be called "the intermediate row". In the description to follow, the terms "arm" and "front" are used interchangeably. As will be appreciated, the first term is useful in emphasizing an important physical feature of the board according to the present invention, while the latter term serves to illustrate an important concept of the game.



For the purpose of the game according to the so-called "Multiple-Front Chess" embodiment, it is desirable to place the board between the two players such that each of them will be able to conveniently control two adjacent arms of the board. Thus, ideally, White and Black will place the board between them in the manner illustrated in Figure 20 (as seen from the viewpoint of White), which is obtained by rotating the cross-shaped board shown in Figure 1 in a suitable angle, such that each of the two players may be assigned with a left arm and a right arm. In figure 20, White's left and right arms are designated 101 and 102, respectively, while Black's left and right arms are designated 103 and 104, respectively.

The aforesaid description of the board used for the "Multiple-Front Chess" embodiment of the invention serves to emphasize the spirit of the new game, which is characterized in that each player uses a combined force of chess pieces initially placed on two adjacent arms of the board, in order to attack two opposing chess kings placed on the other two arms of the board, as will be described in more detail below. However, for practical purposes associated with the acceptable (algebraic) chess notation, it may be convenient to recognize that the board of the invention as shown in Figure 20 is derived from 12x12 chess-like board, consisting of the

files A-L and the rows 1-12, from which the following 36 squares have been removed (or masked):

a1, a2, a3, a10, a11 and a12;

b1, b2, b3, b10, b11 and b12;

c1, c2, c3, c10, c11 and c12;

j1, j2, j3, j10, j11 and j12;

k1, k2, k3, k10, k11 and k12;

l1, l2, l3, l10, l11 and l12;

For convenience, the rows and files are marked with the letters A to L and the numbers 1 to 12, as shown in Figure 20, such that each of the 108 squares of the board may be easily identified. The board is preferably placed between the players such that the square i1 is a dark square belonging to White's right arm.

#### The pieces

Four sets of chess pieces, wherein each of said sets comprises a king, a queen, a pair of rooks, a bishop, a knight and six pawns, are positioned on the board, the arrangement of the starting position being such that each of the four arms of the board is occupied by one set of chess pieces, as will be described in more detail below. It should be noted that the terms "chess pieces", "king", "queen", "rook", "bishop", "knight" and "pawn" include the known, three-dimensional piece(s) shaped in the desired form, and any other representation thereof,

such as discs bearing, for example, pictorial forms of said pieces or any other acceptable notation of said piece(s).

White uses the sets of chess pieces placed on arms 101 and 102, whereas Blacks moves the pieces placed on arms 103 and 104. Hereinafter, the terms "White's left front" and "White's left army" will be used to define arm 101 and the set of chess pieces which, at the starting position, is placed on said arm, respectively. The following terms:

"White's right front" and "White's right army";

"Black's left front" and "Black's left army";

"Black's right front" and "Black's right army"

are defined in an equivalent manner. Obviously, in the course of the game, the pieces will be maneuvered by the players on the entire board. However, each and every piece must always be identified with one of the four armies indicated above. To this end, it is preferable that the two armies belonging to each of the two players will have similar, albeit distinctive, colors, such that each of the pieces placed on the board may be easily assigned to one of the two armies belonging to either White (White's left army and White's right army) or Black (Black's left army and Black's right army). Thus, for instance, the pieces belonging to White's left army

and White's right army may have two distinct light colors (e.g., white and light yellow,), and the pieces belonging to Black's left army and Black's right army will have two distinct dark colors (e.g., black and dark blue). Alternatively, the sets of pieces may be distinguishable using different shapes rather than distinct colors.

#### The rules

It should be noted that in contrast to classical chess, where the opposing white and black sets of pieces form a mirror image in their starting position, in the "Multiple-Front Chess" embodiment of the present invention the preferred arrangement of the chess pieces is identical in each of the four fronts, said arrangement comprising a first rook, a knight, a queen, a king, a bishop and a second rook successively positioned from left to right on the outer row of any given front, and six pawns positioned on the intermediate row of said front, as seen from the viewpoint of the player handling said front.

A preferred starting position of the "Multiple-Front Chess" embodiment according to the present invention may be defined as follows, using acceptable abbreviations for the pieces (K=king, Q=queen, R=rook, N=knight, B=bishop) and the algebraic notation for the board:

White's right army: Rd1, Ne1, Qf1, Kg1, Bh1, Ri1, d2, e2, f2, g2, h2 and i2.

Black's left army: R14, N15, Q16, K17, B18, R19, k4, k5, k6, k7, k8 and k9.

Black's right army: R112, N112, Q112, K112, B112, R112, d12, e12, f12, g12, h12 and i12.

White's left army: Ra9, Na8, Qa7, Ka6, Ba5, Ra4, b4, b5, b6, b7, b8 and b9.

Figure 21 illustrates the starting position of White's right army.

The pieces are allowed to move in accordance with the rules of classical chess, with certain exceptions that will become apparent as the description proceeds. However, one critical deviation from classical chess is as follows: White, in his turn, makes two moves in succession, the first move being with a piece belonging to White's left army and the second with a piece belonging to White's right army. Black, in his turn, also makes two moves in succession, the first move being with a piece belonging to Black's left army and the second with Black's right army.

Preferably, in order to compensate Black for White having the right to open the game, in the starting position White will make only one move, with a piece belonging to the White's right army. The game will subsequently proceed according to the afore-mentioned

description, that is, each player, in his turn, will make two moves in succession.

As mentioned above, the pieces are allowed to move in accordance with the rules of classic chess, including castling, *en passant*, promotion, etc., with the following exceptions:

1) A pawn advancing along an outside file (or rank) of the central 6x6 region, namely, the i-file, the d-file, the fourth rank or the ninth rank, which, by virtue of capturing an enemy piece (including *en passant*) enters a front that is contiguous with said outside file (or rank) of said central region, will proceed its advance in the direction defined by the outer row of said front, and once reaching said outer row, said pawn will promote.

2) By either short (kingside) or long (queenside) castling, the king is brought to a square adjacent the corner of the front in which said king is positioned, wherein said square is selected from the group consisting of: e1, h1 (for the king of White's right army), l5, l8 (for the king of Black's left army), e12, h12 (for the king of Black's right army) and a5, a8 (for the king of White's right army).

3) According to one embodiment of the invention, all prohibitions related to castling according to the classic chess are preserved in the game of the invention. According to an alternative embodiment, a player is allowed to castle even in case that his king is under a threat (check), or even if a square in the route of castling is controlled by an enemy piece. The other prohibition related to castling according to the classic chess, wherein the right to castle is lost once either the king or the rook participating in the castling have moved, is preferably preserved in the present game.

4) The purpose of the game is to capture one of the two kings of the opponent, following which said king and his army are removed from the board, thus leaving said opponent with only one army (the opponent's left army, in case that the king of the opponent's right army has been captured, and vice versa). The game is won after the second king of the opponent is checkmated. The term "to capture one of the two kings" does not relate to a checkmate position, but rather to the act of taking the king and removing the same from the board.

5) In the event that a player has lost one of his two armies, such that only the player's right army or the player's left army is left on the board, said player is entitled to make only one move in his turn.

While the rules of the game may be completed and even changed by the players, several preferred rules have been given. While it is desirable to apply them, any departure from them should not be considered as a departure from the invention.

### Example 1

The following example illustrates the first stages of a game played between two players, White and Black, in accordance with the "Multiple-Front Chess" embodiment of the invention. The game is accompanied with brief comments emphasizing specific features of the game. The starting position is as defined hereinabove, and the following symbols and abbreviations are used:

K king  
 Q queen  
 R rook  
 N knight  
 B bishop  
 0-0 castles kingside  
 : captures  
 + check

Move no.	White		Black	
	White's left Army	White's right army	Black's left army	Black's right army
1		g2-g3	K5-j5	f11-f10
2	Na8-c9	Ne1-d3	k7-j7	Be12-f11
3	b8-c8	Qf1-h3	k4-i4	h11-h10
4	Nc9-d11+	Qh3-d7	i4-h4	0-0*
5	Qa7:e11+	Qd10**	h4:g3***	Ke12:e11****
6	d6	Qd10:e11*****		



## Comments:

\* Black castles kingside under check.

\*\* The queen of White's right army is joining the attack, supporting the queen of White's left army.

\*\*\* The Black pawn entered White's right front, and may advance to promote in the first rank.

\*\*\*\* The king of Black's right army had no escape.

\*\*\*\*\* The Queen of White's right army captures the king of Black's right army, following which Black's right army is removed from the board. Black is entitled to continue the game, playing only one move in his turn.

CLAIMS

1. A game, comprising:

(i) a cross-shaped board comprising a center of 6x6 cells and four arms, each of which comprises 3x6 cells, disposed with the longer side adjacent to said center, the shorter side being perpendicular to it;

(ii) two to four sets of pieces, each of said sets comprising

a) first subset of six pieces, two of which are equal to one another while the other four are different from one another and from the aforesaid two, wherein one of said four pieces is designated as the main piece,

b) a second subset of six pieces, equal to one another and different from the pieces of said first set,

wherein said game is played according to a set of rules comprising:

a) each of the aforesaid two to four sets of pieces is arranged, at the start of the game, in one of said four arms, such that the six pieces of said first subset are positioned on the outermost row of said arm in a predetermined succession, and the six pieces of said second subset on the parallel row adjacent to said outermost row,

b) each piece is assigned with a well-defined movement pattern, according to which said piece is allowed to move over the board;

c) the purpose of the game is to capture at least one of the main pieces, following which the set of pieces to which each said main piece belongs is removed from the board.

2. A game according to claim 1, wherein the board consists of 108 cells, each of which being in the form of a square, said 108 squares being arranged in a central squared region and in four rectangular regions, wherein said central region is defined by an array consisting of 6x6 squares, and each of the four rectangular regions is in the form of an array consisting of 6x3 squares, wherein each of said rectangular regions extends parallelly from a side of said central region, with the long dimension of said rectangular region being contiguous with the side of said central region, and wherein said 108 squares are alternately colored with two different colors, the colored pattern of the board being such that two adjacent squares in any given rank or file are of different colors, thereby preserving the colored pattern of a traditional chess board.

3. A game according to claim 2, wherein the two to four sets of pieces are sets of chess pieces, wherein each of

said two to four sets has a distinctive color, and wherein each of said two to four sets comprises a king, a queen, a pair of rooks, a bishop, a knight and six pawns.

4. A game according to claim 3, wherein, at the starting position, each set of the chess pieces is arranged in each of the four arms of the board.

5. A game according to claim 4, wherein the arrangement of the starting position is defined by a first rook, a knight, a queen, a king, a bishop and a second rook being successively positioned from left to right on the outermost row of each arm, and the six pawns positioned on the row adjacent to said outermost row, as seen from the viewpoint of a player handling said arm.

6. A game according to claim 4 or 5, wherein four sets of chess pieces are placed over the board.

7. A game according to claim 6, played by two opponents, designated White and Black, which is characterized in that each opponent uses two distinct sets of chess pieces initially placed on two adjacent arms of the board, wherein White, in his turn, makes two moves in succession, the first move being with a piece belonging to a first set of chess pieces and the second move with a piece belonging to a second set of chess pieces and

wherein, Black, in his turn, also makes two moves in succession, the first move being with a piece belonging to a third set of chess pieces and the second move with a fourth set of chess pieces.

8. A method for playing the board game defined in any one of claims 1 to 7 between two to four opponents, wherein said opponents are:

- (i) making their moves over a physical board placed therebetween; or
- (ii) Communicating their moves to each other by any suitable means, including post and e-mail; or
- (iii) Playing the game via the internet using programs capable of generating virtual images of the board and the chess pieces placed thereon.

9. A board suitable for use in the game according to claim 2, wherein said board consists of 108 cells, each of which being in the form of a square, said 108 squares being arranged in a central squared region and in four rectangular regions, wherein said central region is defined by an array consisting of 6x6 squares, and each of the four rectangular regions is in the form of an array consisting of 6x3 squares, wherein each of said rectangular regions extends parallelly from a side of said central region, with the long dimension of said rectangular region being contiguous with the side of said central region, and wherein said 108 squares are

alternately colored with two different colors, the colored pattern of the board being such that two adjacent squares in any given rank or file are of different colors, thereby preserving the colored pattern of a traditional chess board.

10. Use of a board consisting of 108 cells, each of which being in the form of a square, said 108 squares being arranged in a central squared region and in four rectangular regions, wherein said central region is defined by an array consisting of 6x6 squares, and each of the four rectangular regions is in the form of an array consisting of 6x3 squares, wherein each of said rectangular regions extends parallelly from a side of said central region, with the long dimension of said rectangular region being contiguous with the side of said central region, and wherein said 108 squares are alternately colored with two different colors, the colored pattern of the board being such that two adjacent squares in any given rank or file are of different colors, thereby preserving the colored pattern of a traditional chess board, in combination with two to four sets of chess pieces each of which consisting of a king, a queen, a pair of rooks, a bishop, a knight and six pawns, for playing a board game, wherein said board and said chess pieces may be provided either in a physical form made of any suitable material or in a virtual form using suitable computer programs.

11. A process of organizing a tournament, wherein the competitors participating in said tournament play the game defined in any one of claims 1 to 7.

12. A process of organizing a tournament, wherein the competitors participating in said tournament are caused to use the method of claim 8.

13. A game which comprises the following features:

1 - It is played by two to four players, each having at least one set of 12 pieces comprising a first subset of six pieces, two of which are equal to one another while the other four are different from one another and from the aforesaid two, and a second subset of six pieces, equal to one another and different from the pieces of said first set.

2 - The aforesaid sets of pieces are arranged, at the start of the game, each on the outermost on two parallel rows, the six pieces of said first subset on one row in a predetermined succession, and the six pieces of said second subset on the other row.

3 - The players make their moves successively in clockwise or counterclockwise order.

4 - One of the pieces of each set is designated as the main piece, and when said main piece is taken, the set of pieces to which it belongs is removed from the board;

5 - Optionally, there is only one winner of the game, and he is the player who succeeds to preserve his main piece.

14. A game according to claim 13, which is played on a cross-shaped board, which comprises a center of 6 x 6 cells and four arms, each of which comprises 3 x 6 cells, disposed with the longer side adjacent the said center, the shorter side being perpendicular to it.

15. A game according to claim 13, which is played on a cross-shaped board that is a part of a general board, said general board being square and consisting of 14 rows of 14 square cells each.

16. A game according to claim 13, further comprising a time limit for each move of each player.

17. A game according to claim 16, wherein the time limit is determined by an hour glass.

18. A game according to claim 13, wherein the cells are squares.

19. Game according to claim 13, wherein the cells are polygons different from squares or are figures bounded by curved sides.



20. Game according to claim 13 or 15, wherein the cells are alternatively of two different colors.

21. Game according to claim 13, wherein each of the sets of pieces is equal to a classic chess set or is composed of pieces each of which corresponds to a classic piece, except in that the first subset has only one bishop and one knight instead of two and the second subset has six pawns instead of eight.

22. Set of patterns for learning the game of claim 3, which defines the motions allowed to at least a number of the pieces for playing said game.

23. Set of patterns according to claim 22, which are cut-out patterns wherein the motions allowed to a piece are defined in each pattern by an opening indicating the position of said piece and cut-out corridors each of which defines at least one of the motions allowed to said piece.

24. Set of patterns according to claim 22, consisting in cut-out cardboard or plastic pieces.

25. Method of generating a game board required for playing a desired game, which comprises providing a base board, providing a set of frames for masking part of said base board, each of the frames of said set leaving

uncovered a part of said base board, and superimposing to said base board the frame of said set that leaves uncovered the part of said base board defining said game board.

26. A device comprising a base board and a set of frames for carrying out the method of claim 25.

1/26

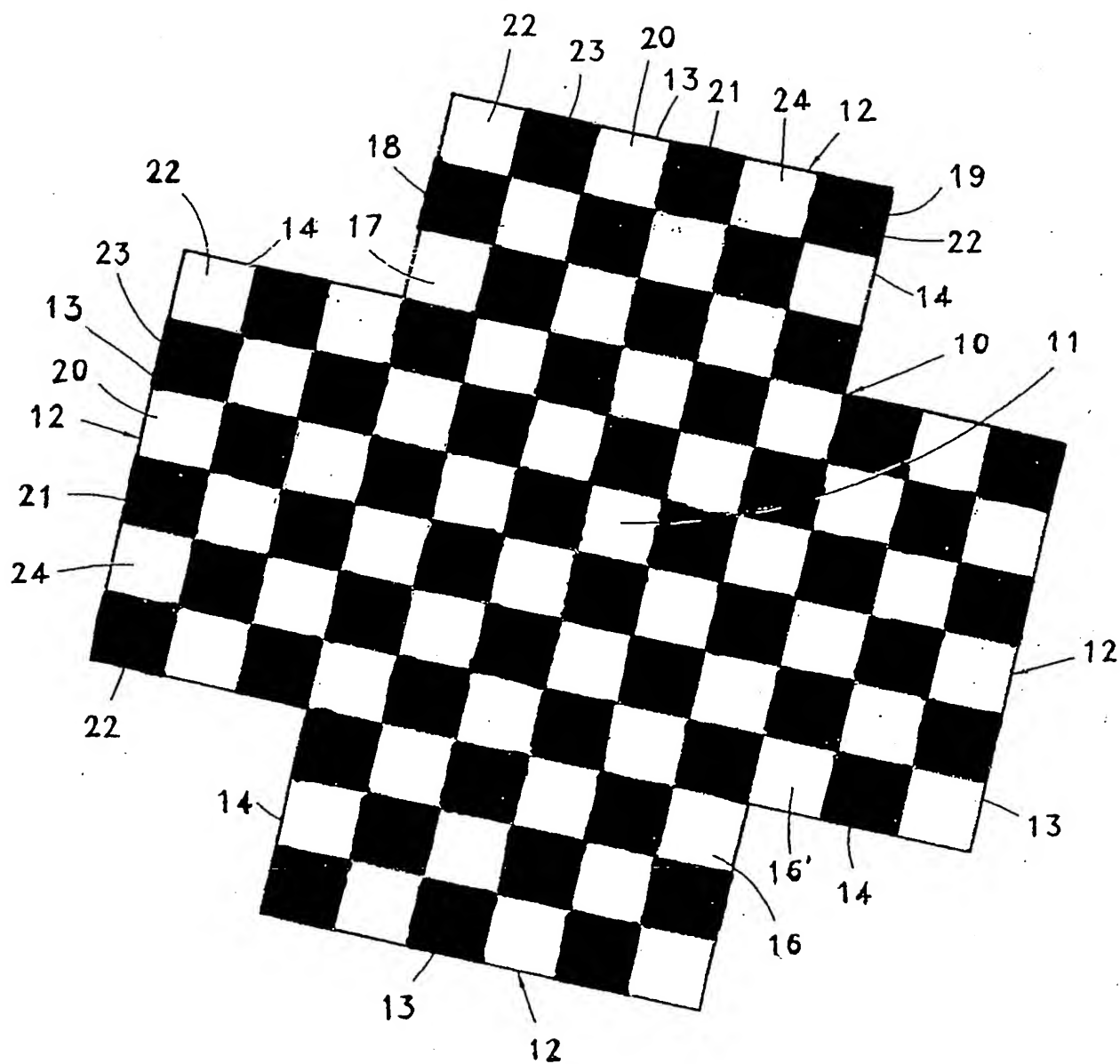


Fig. 1

2/26

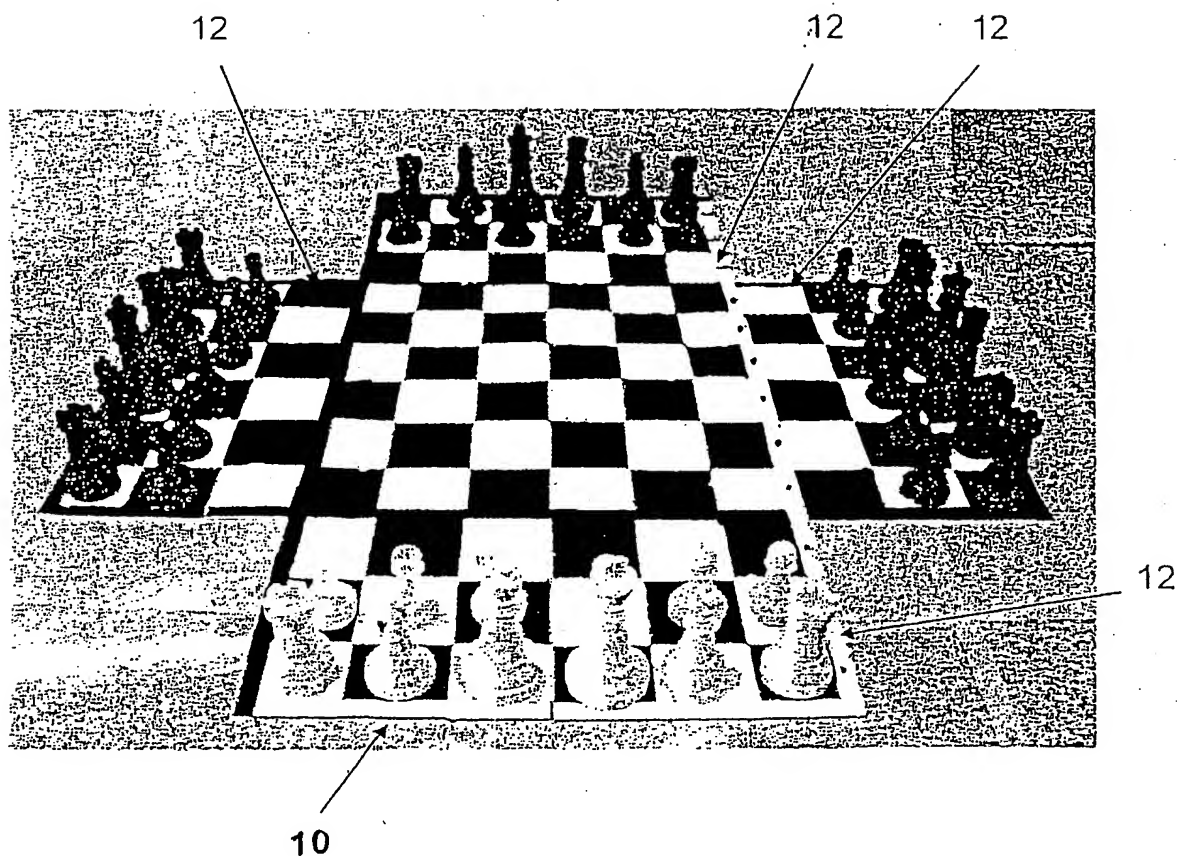


Fig. 2

3/26

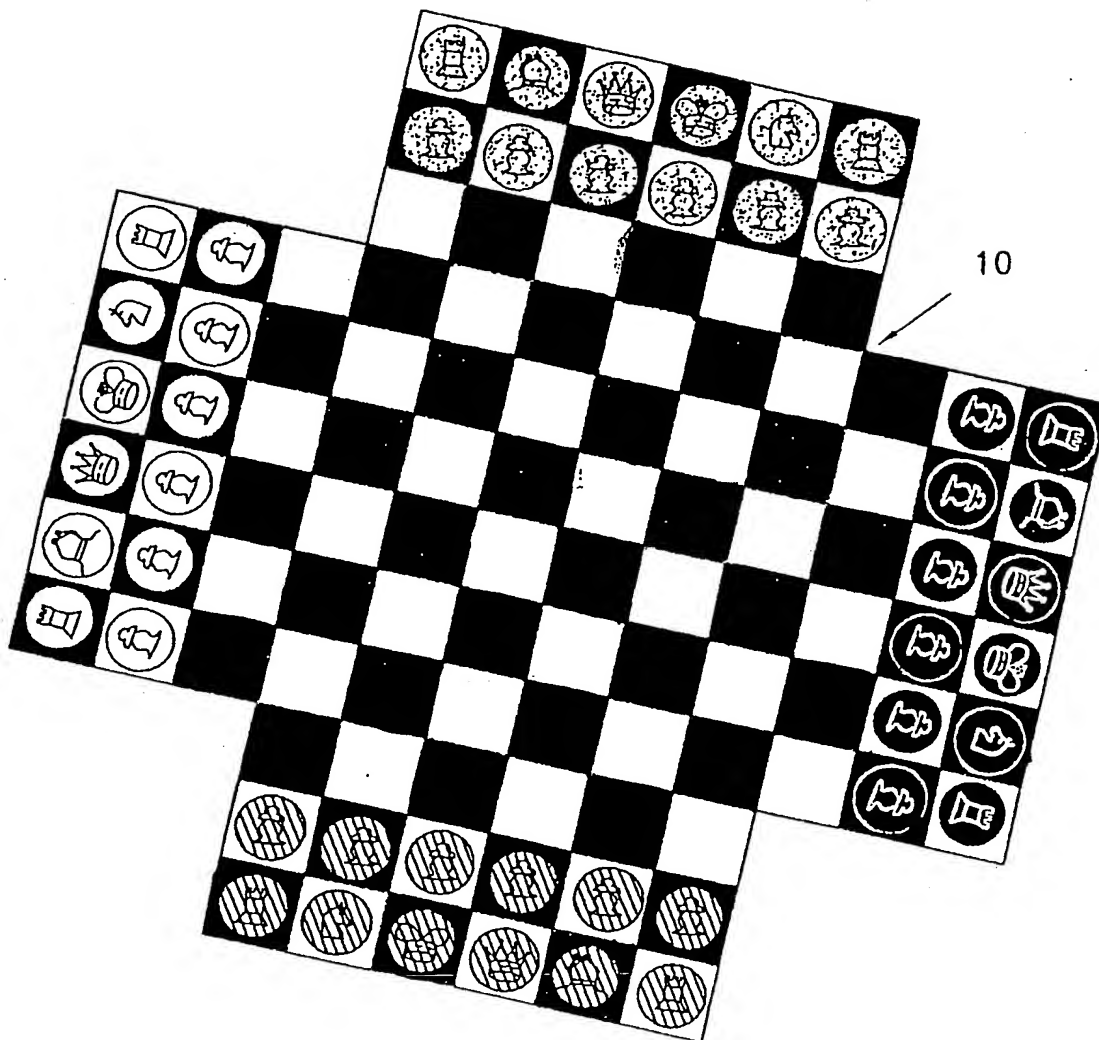
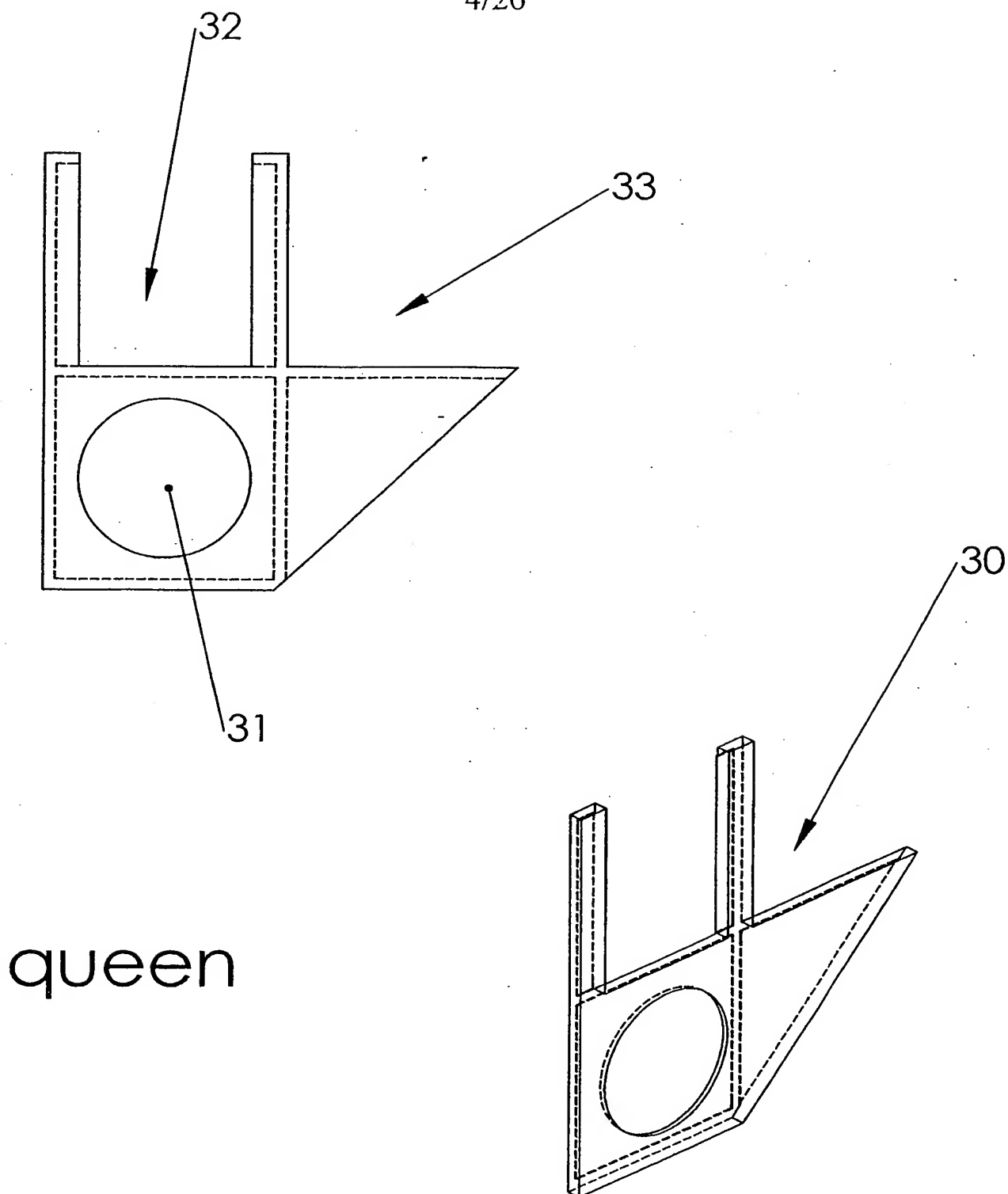


Fig. 3

4/26



queen

Fig. 4A

5/26

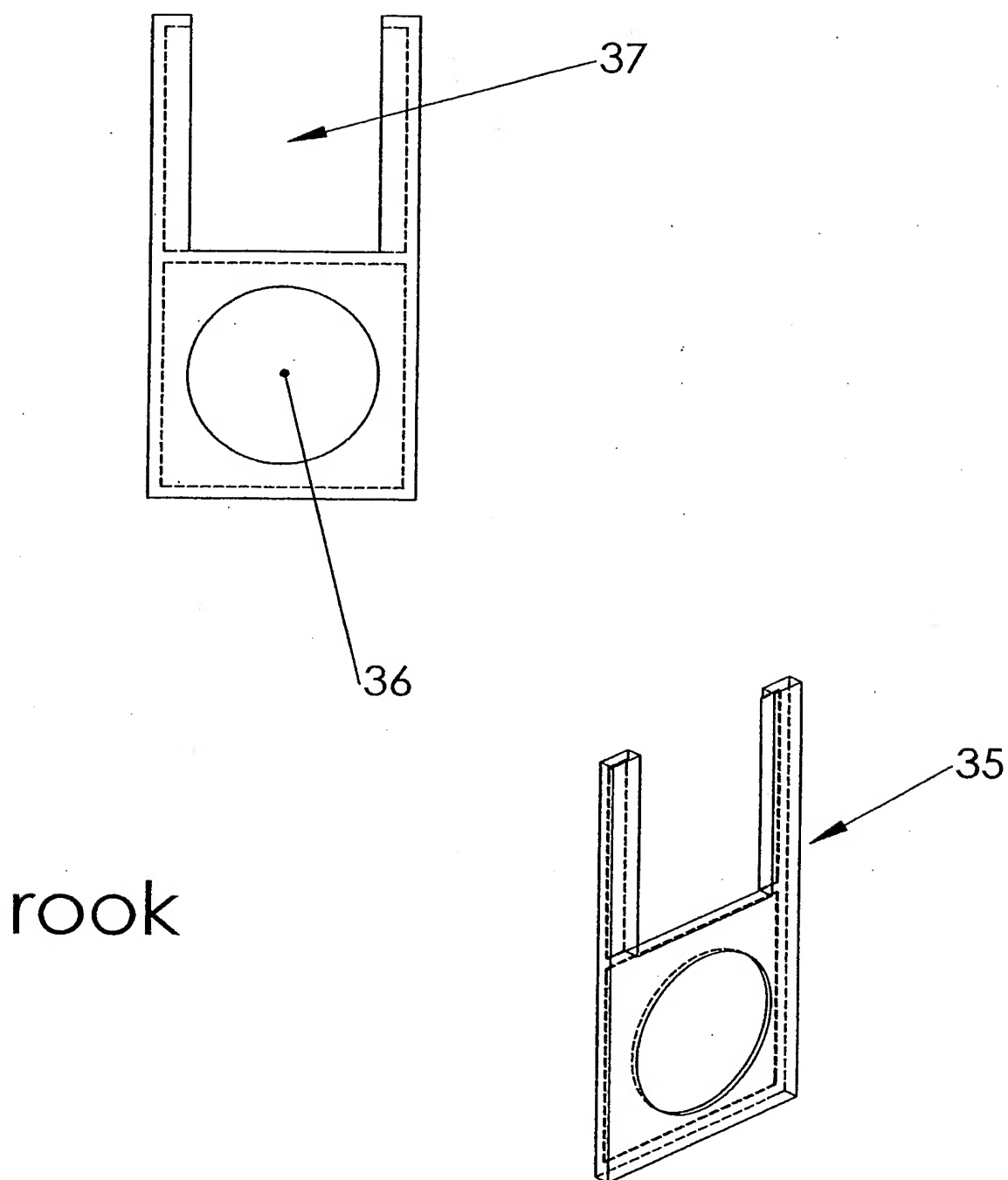


Fig. 4B

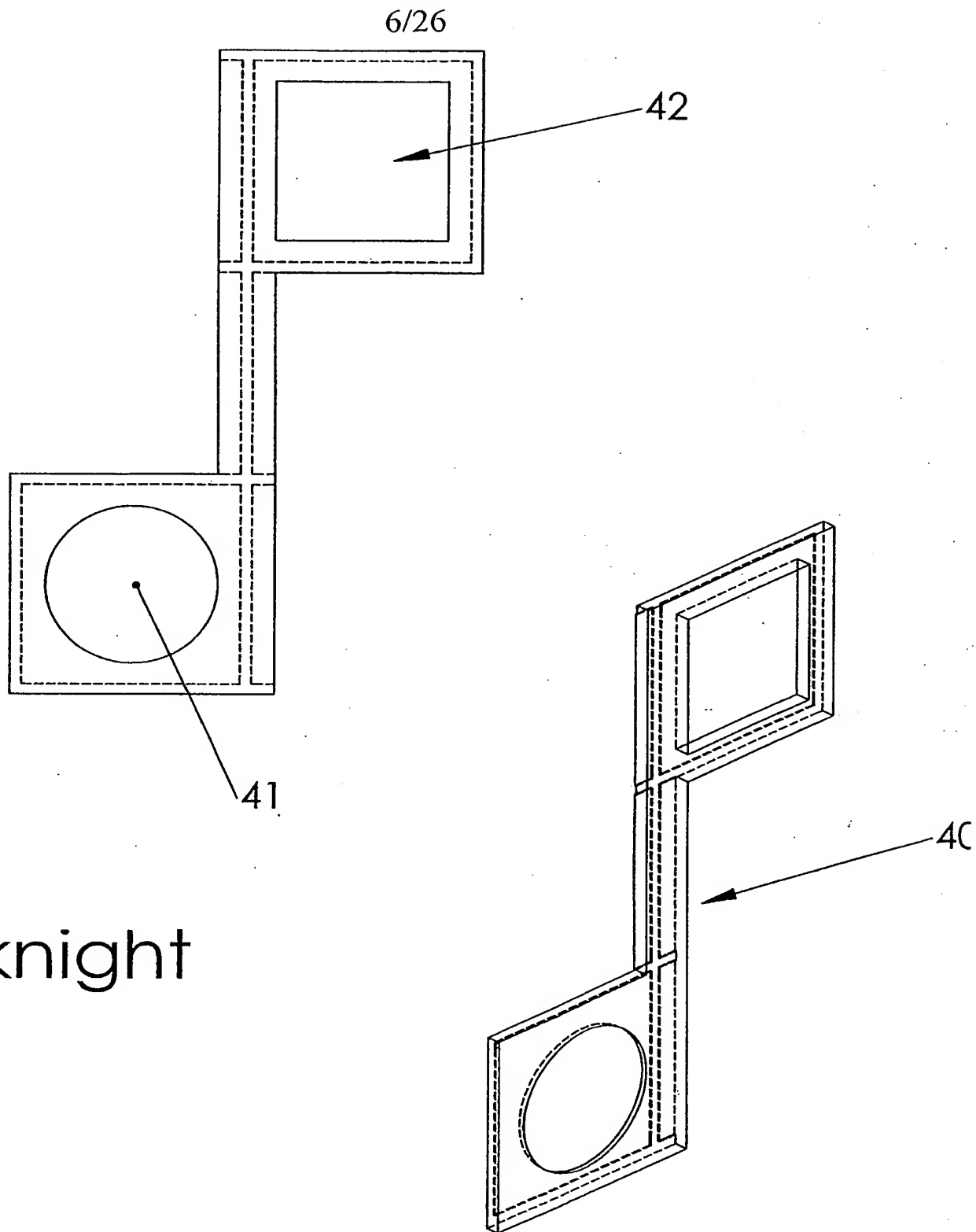
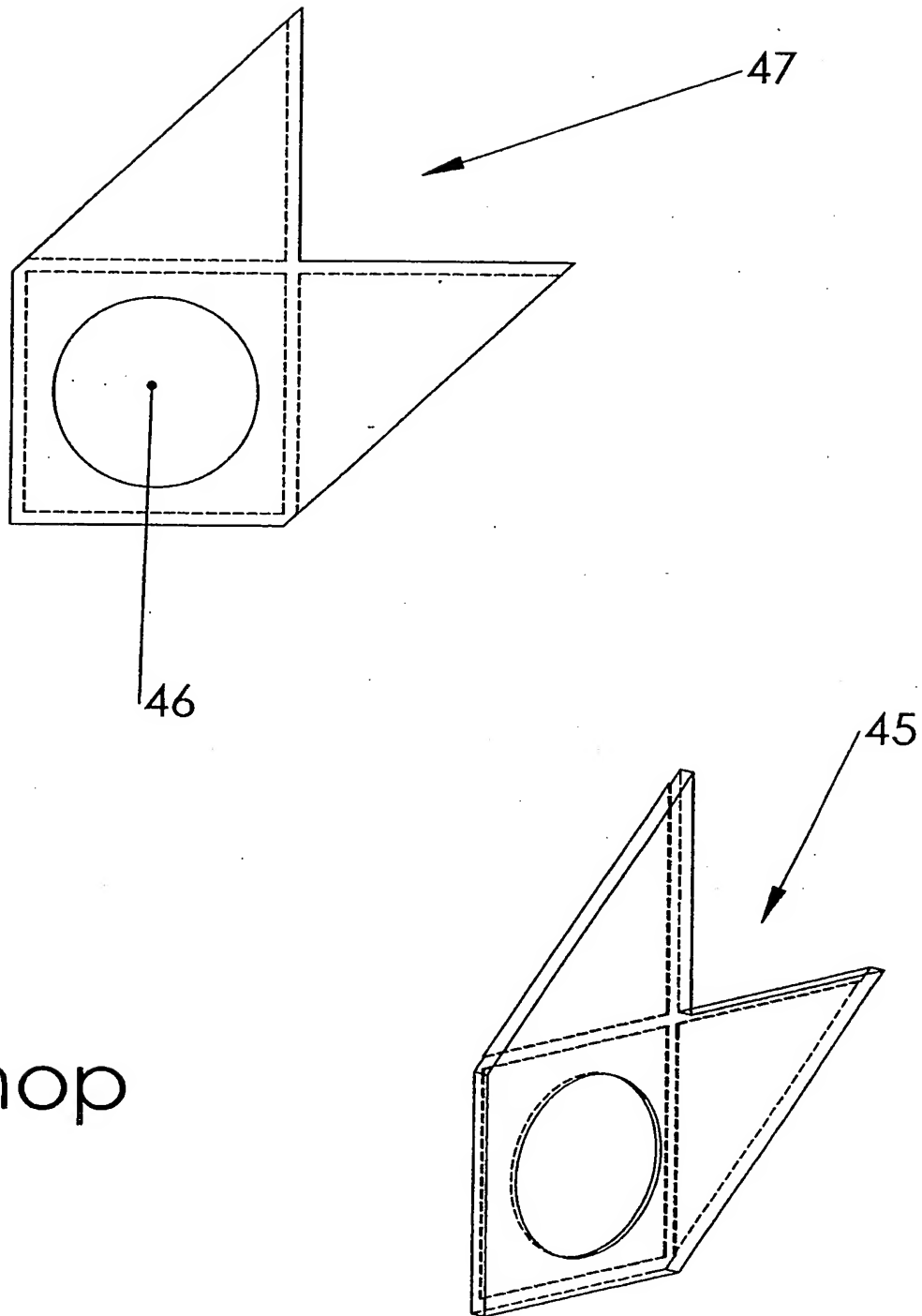


Fig. 4C



7/26



bishop

Fig. 4D

8/26

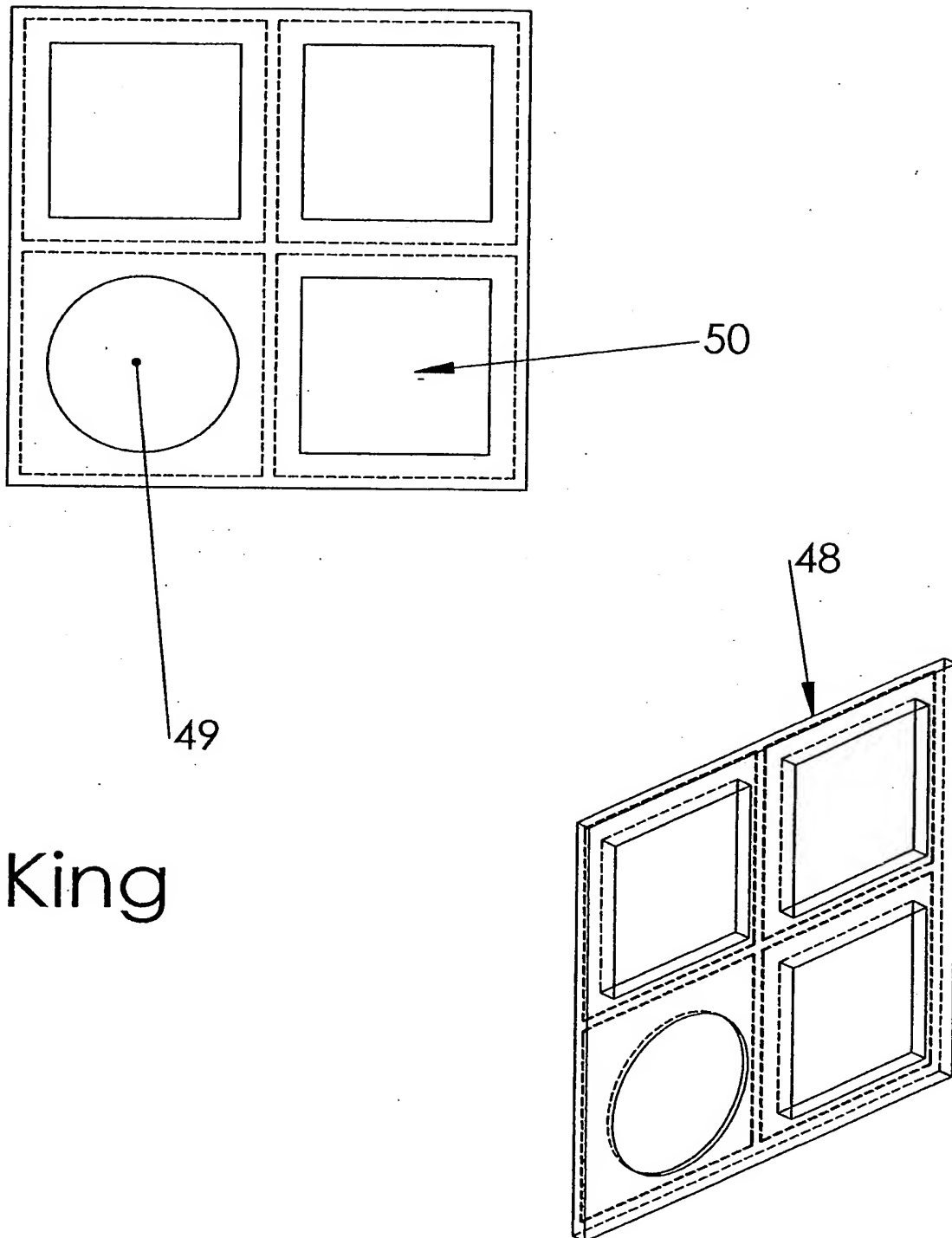
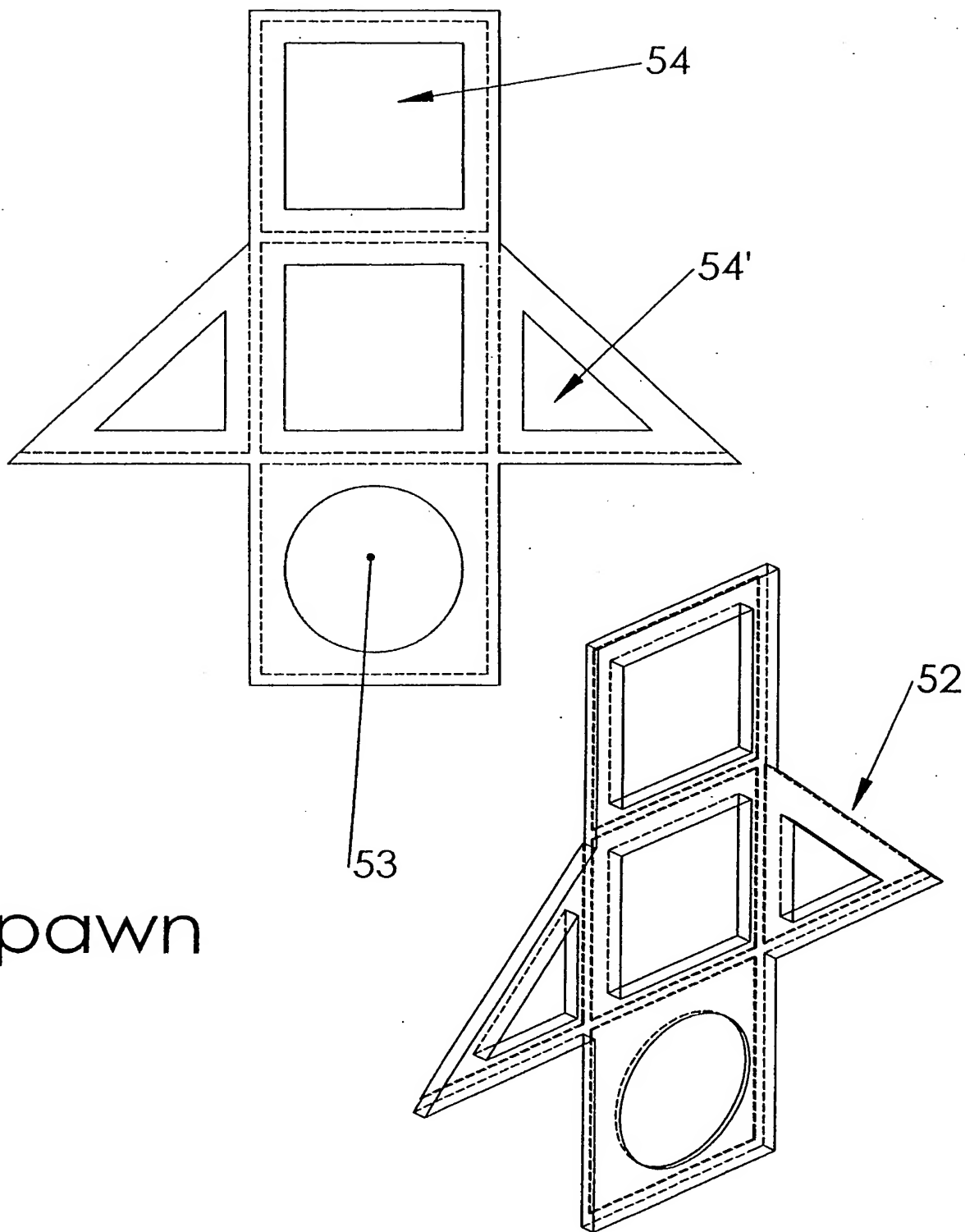


Fig. 4E

9/26



pawn

Fig. 4F

10/26

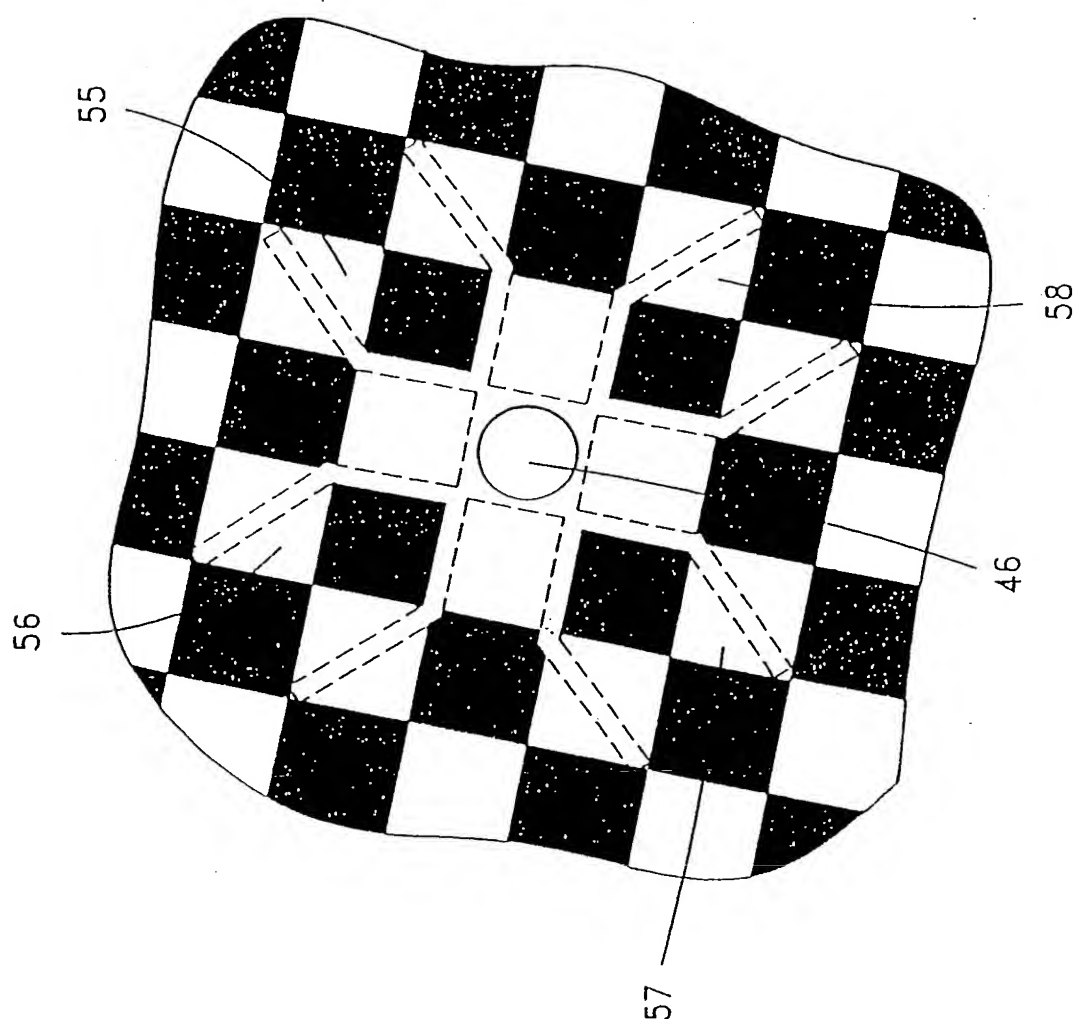


Fig. 5

11/26

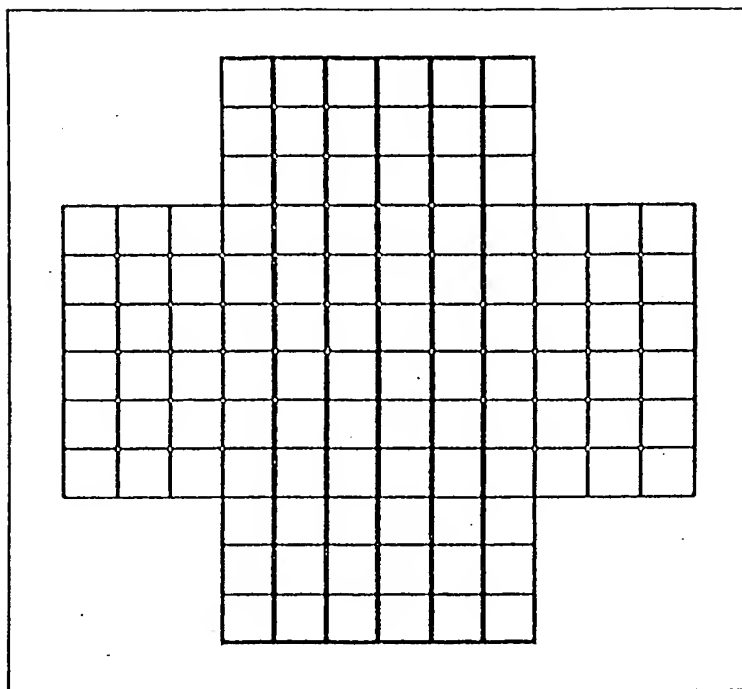


Fig. 6

12/26

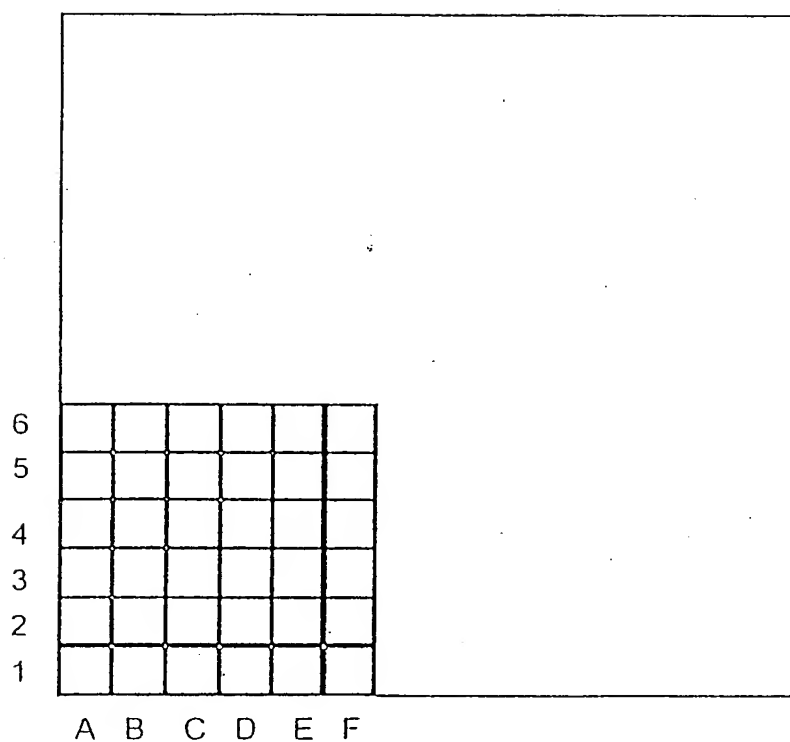


Fig. 7

13/26

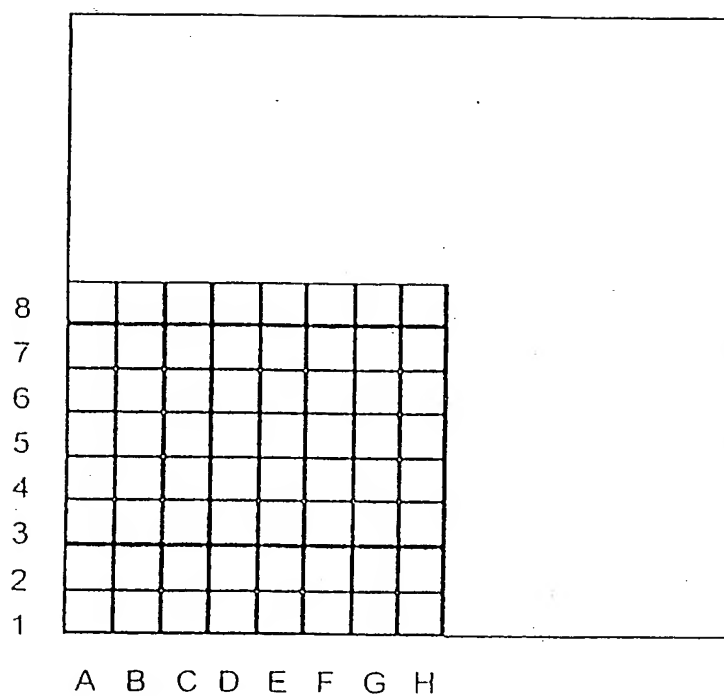


Fig. 8

14/26

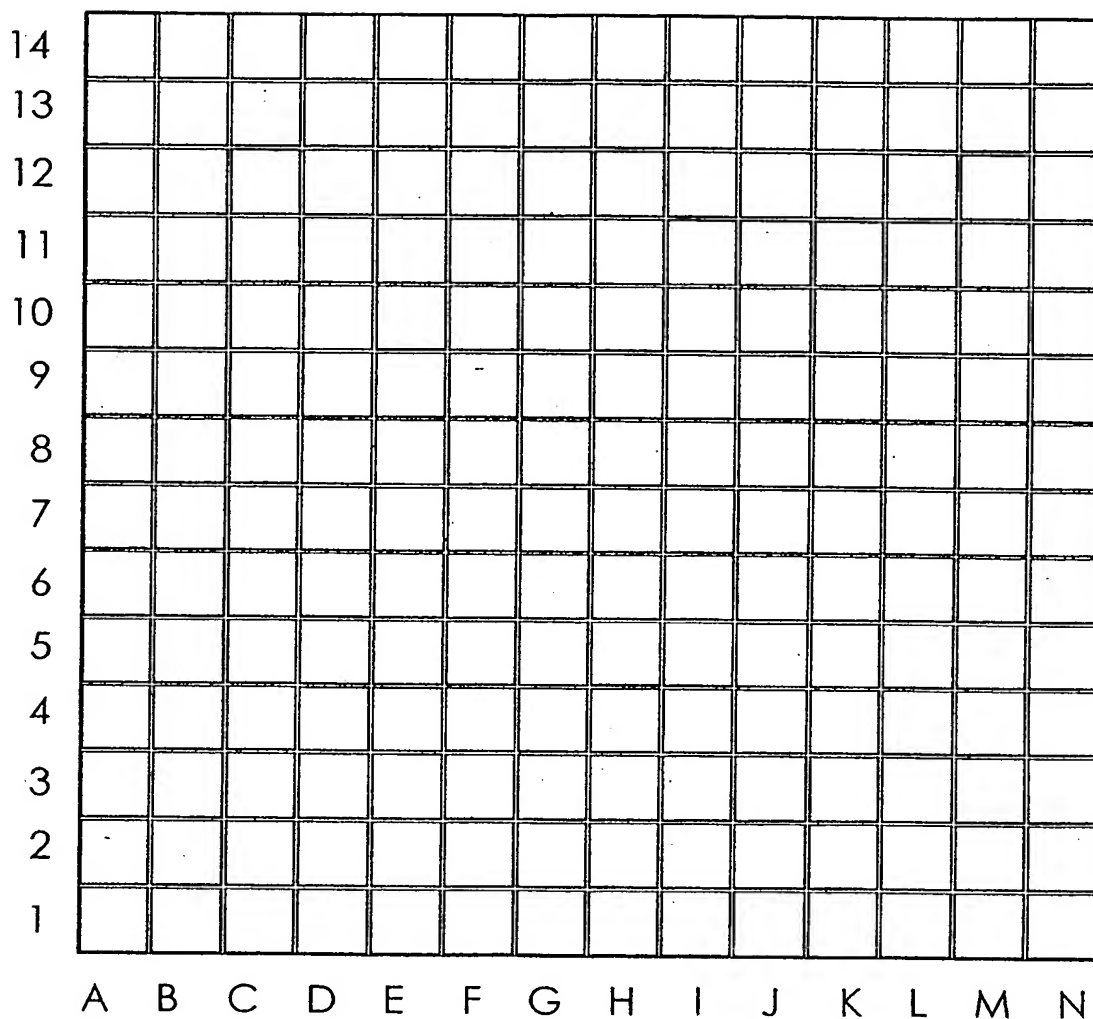


Fig. 9



15/26

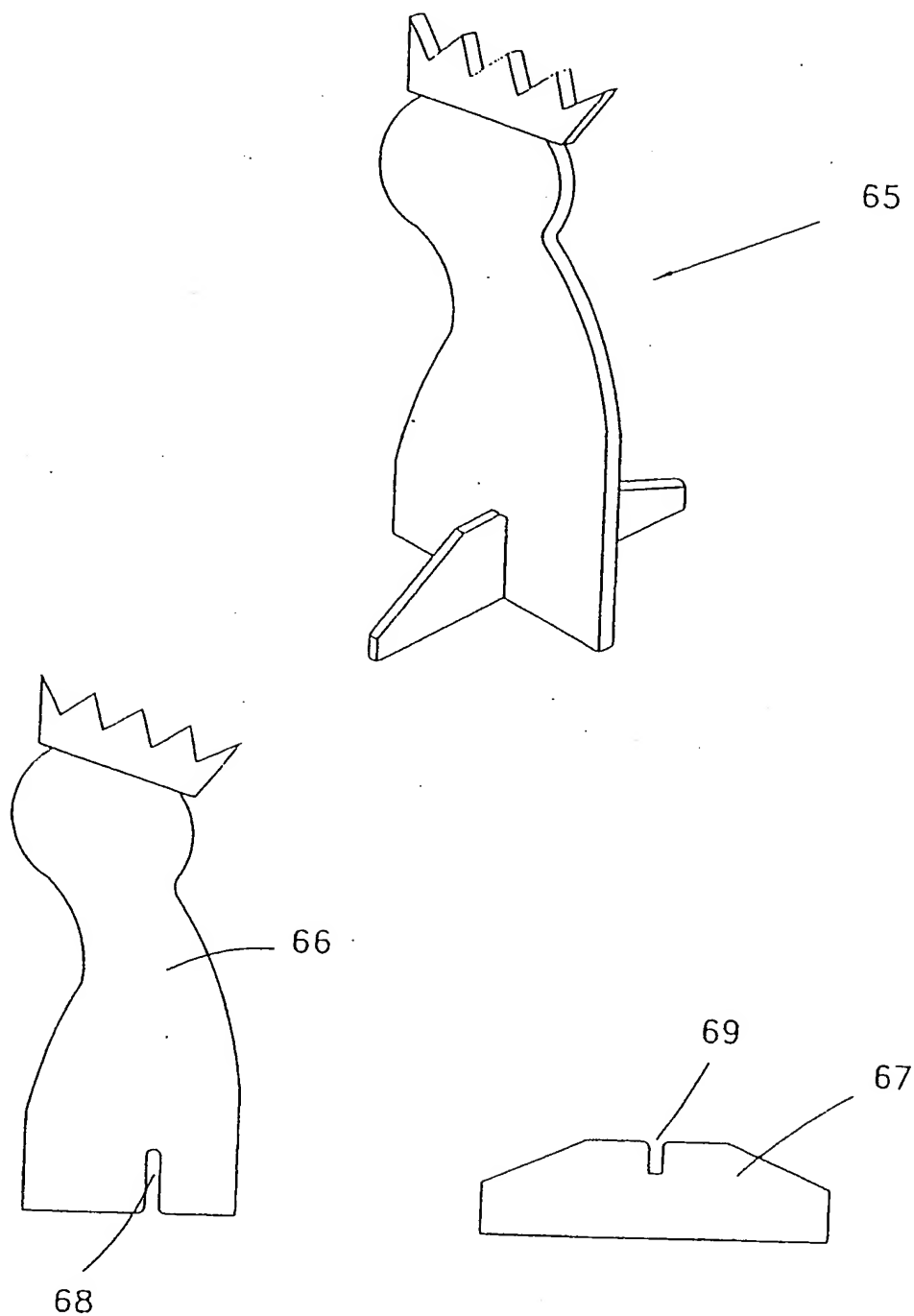


Fig. 10

16/26

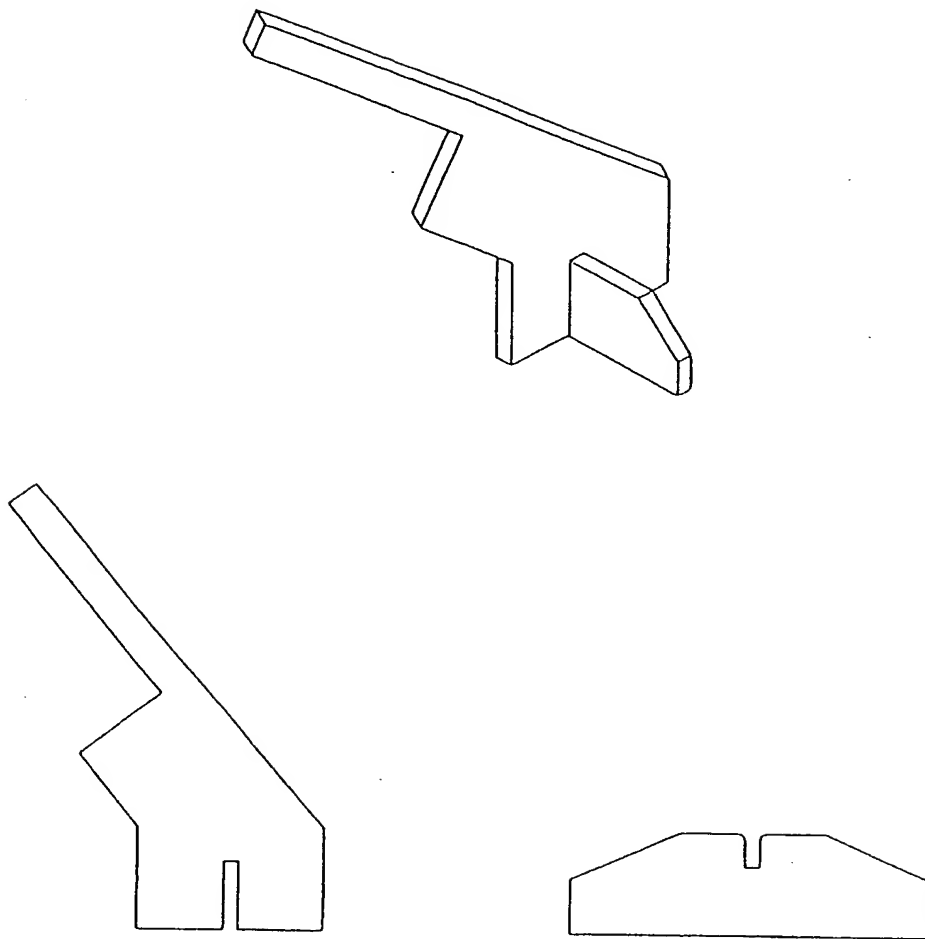


Fig. 11

17/26

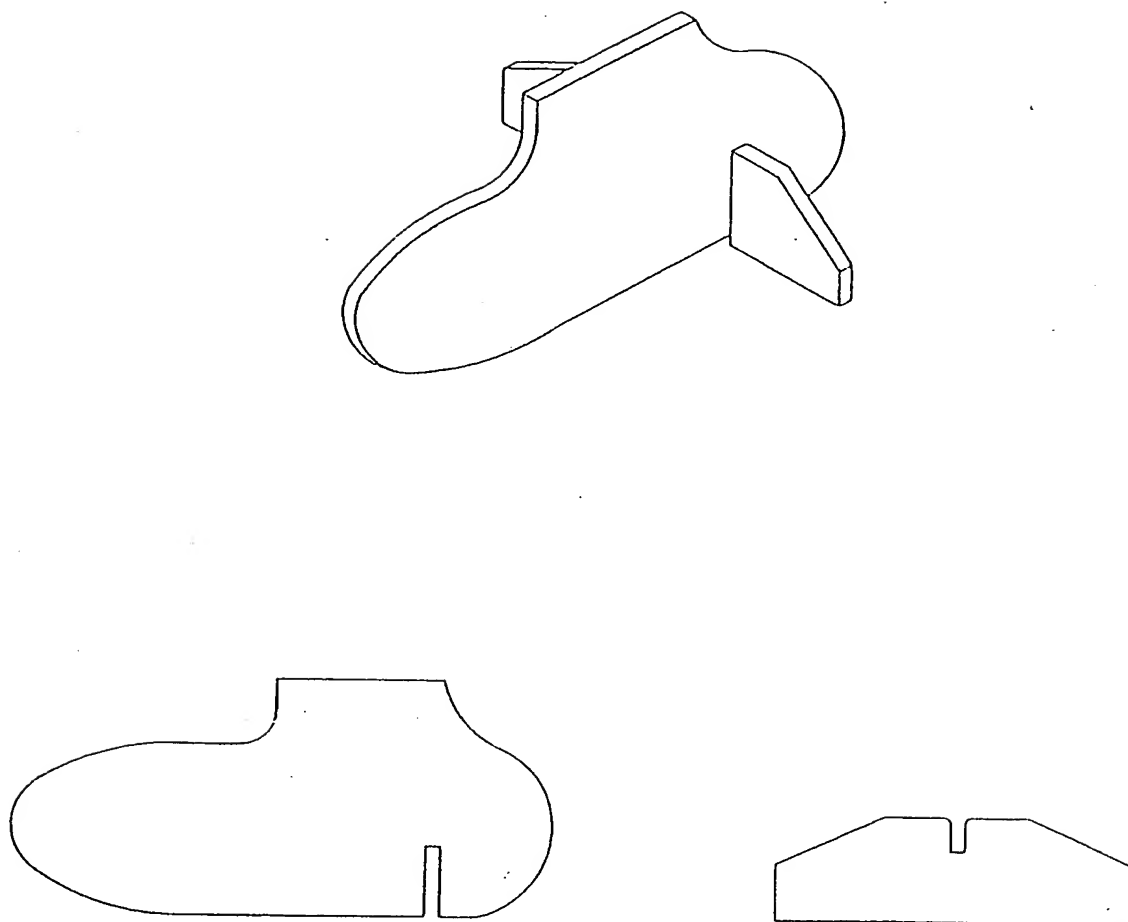


Fig. 12

18/26

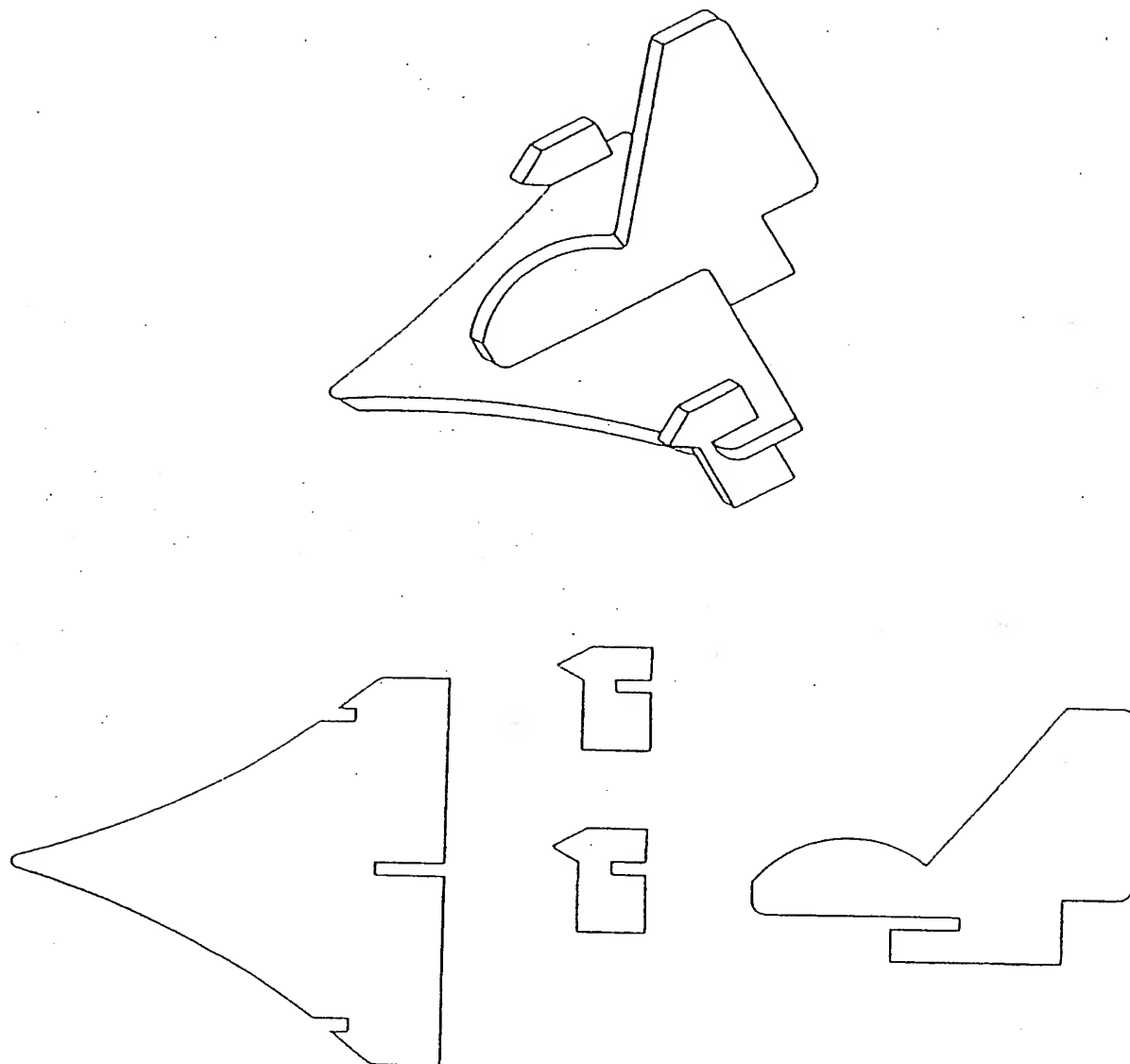


Fig. 13

19/26

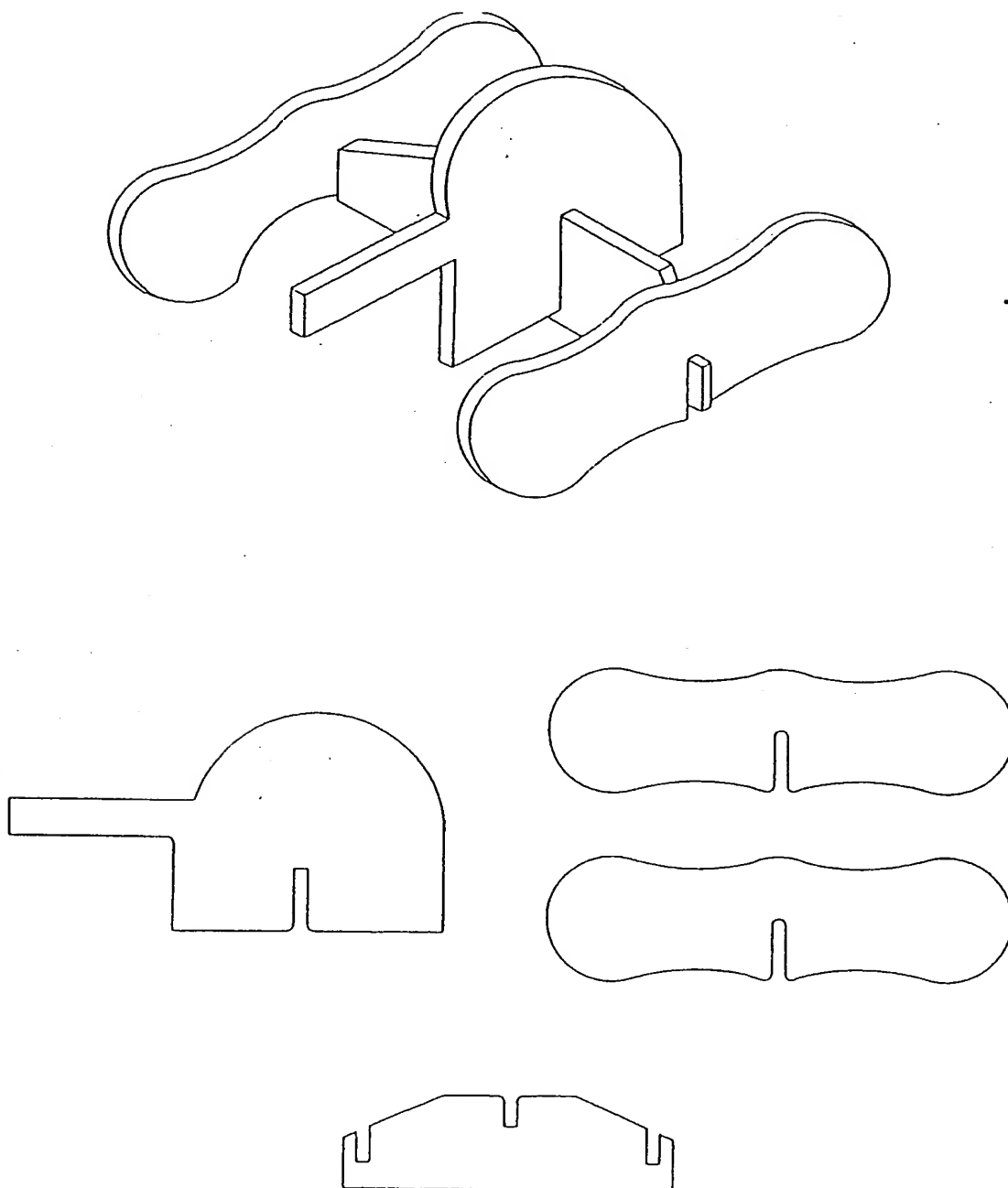


Fig. 14

20/26

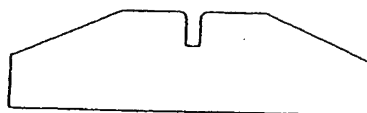
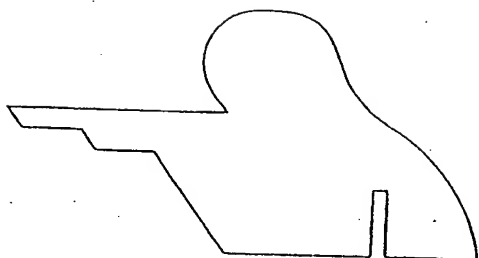
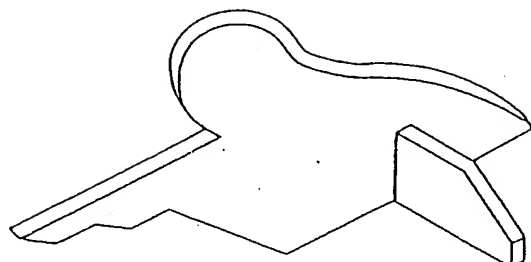


Fig. 15

21/26

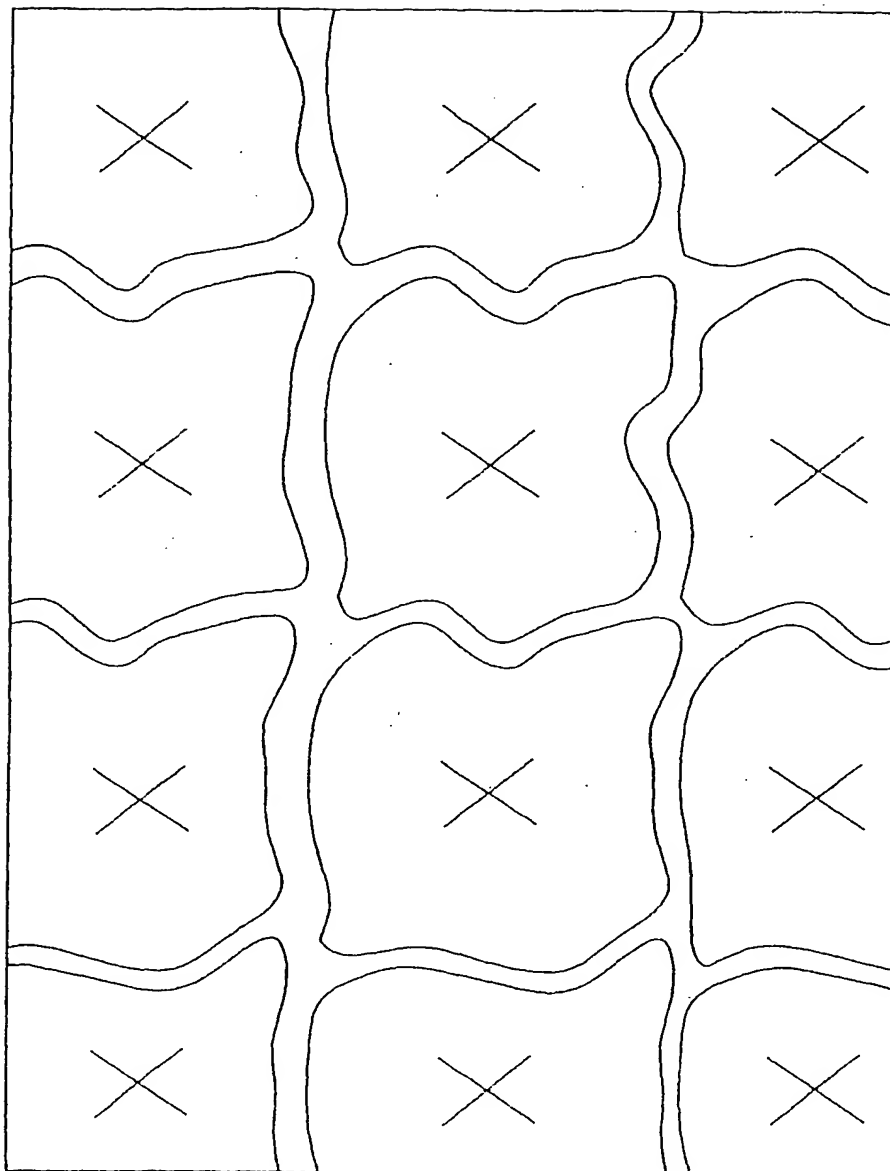
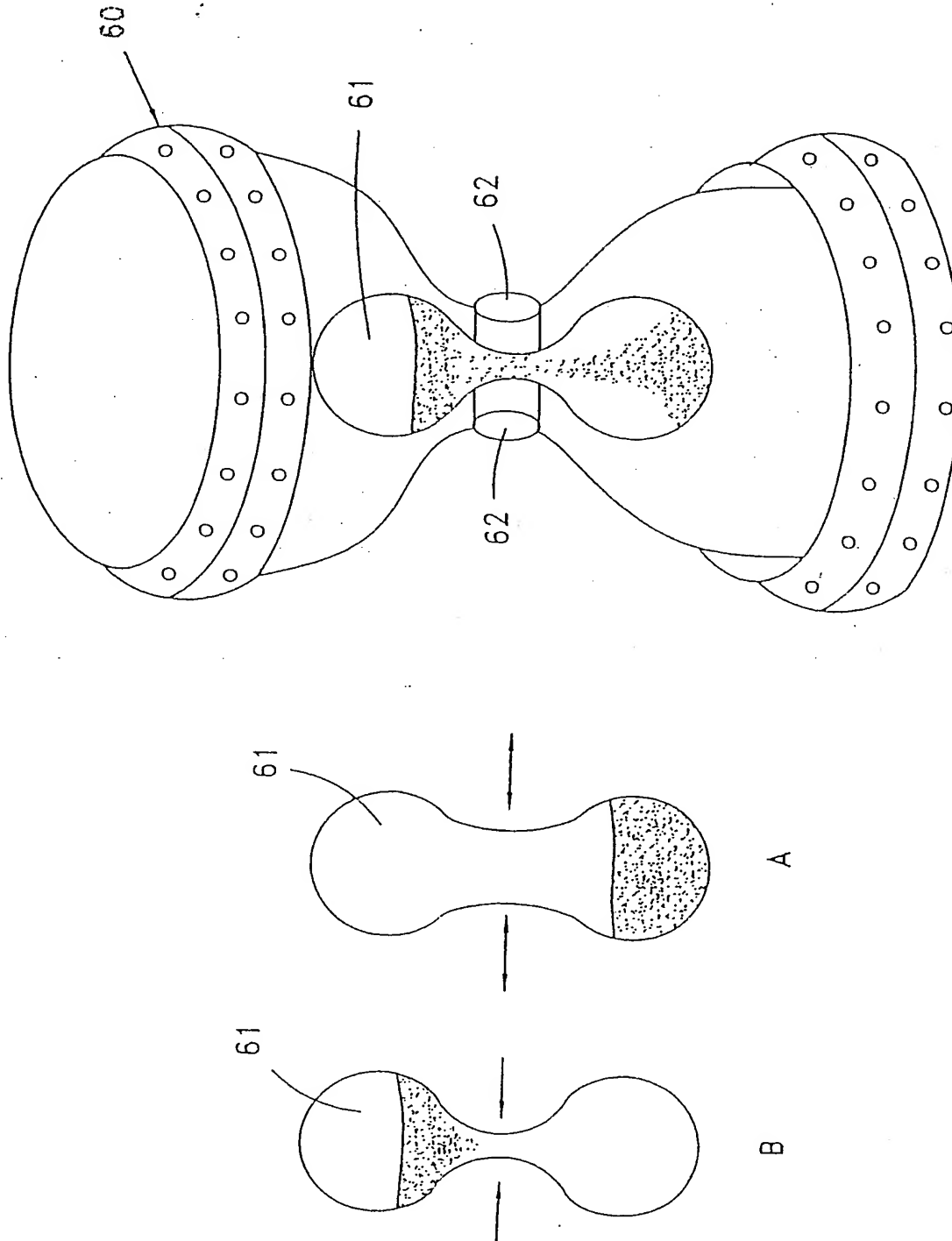


Fig. 16

22/26





23/26

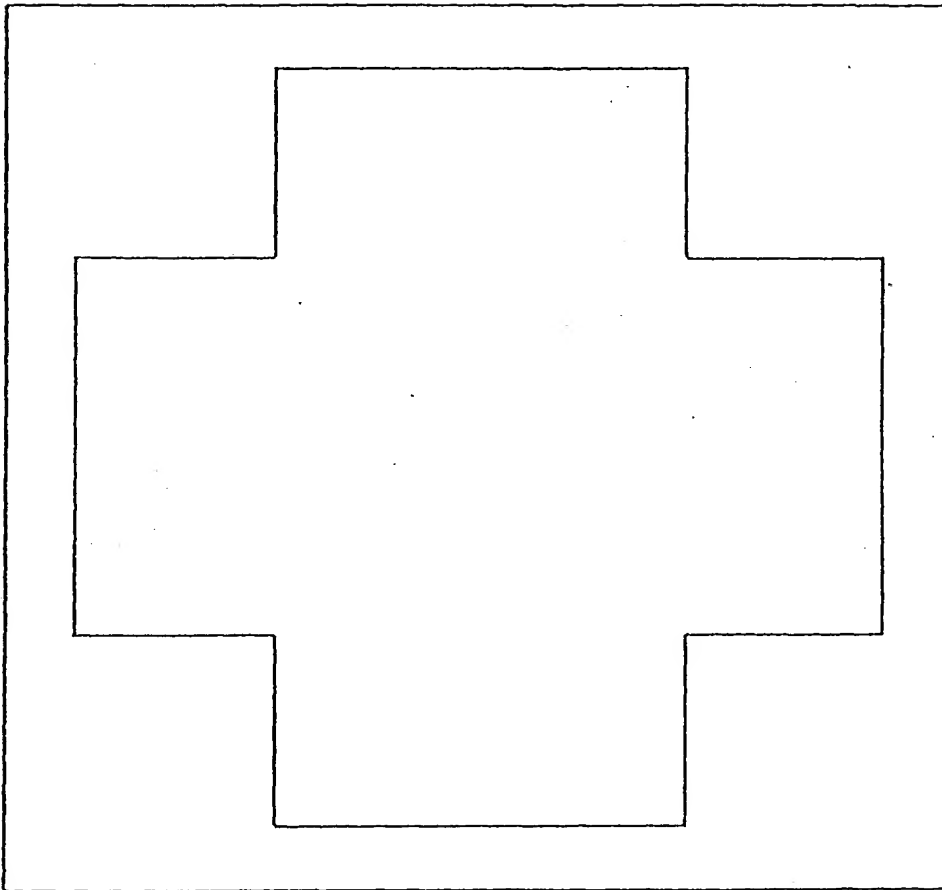


Fig. 18

24/26

frame

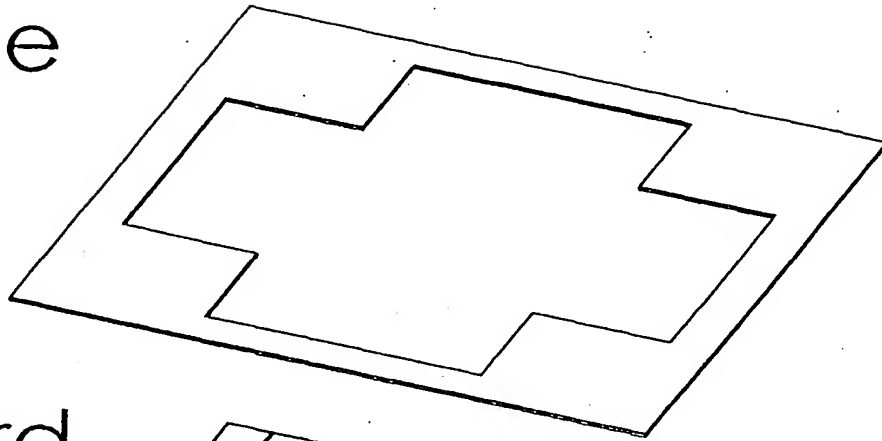


Fig. 19A

board

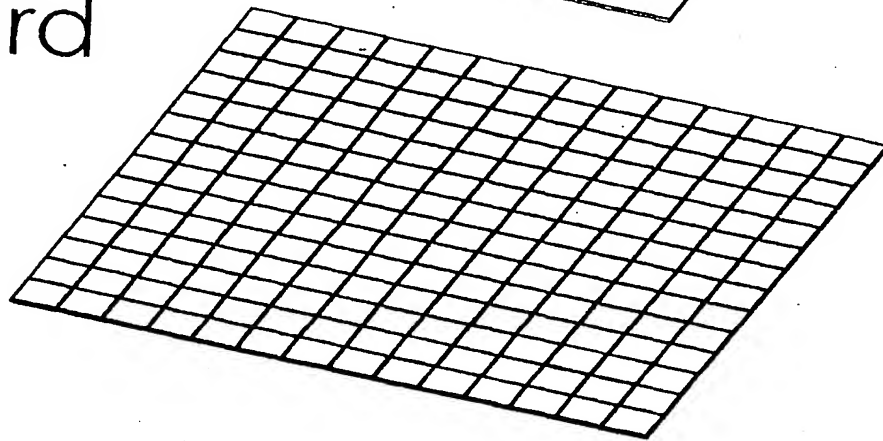


Fig. 19B

game board

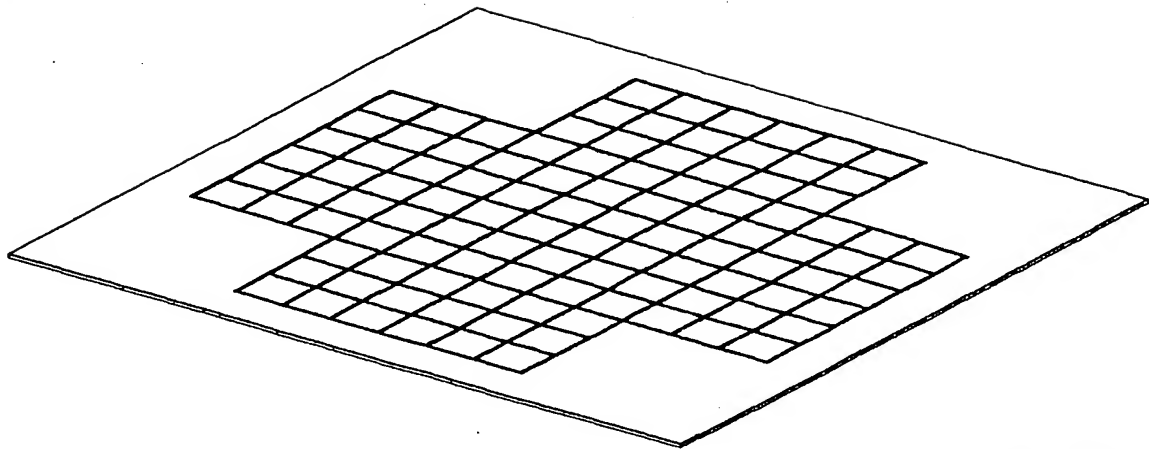


Fig. 19C

25/26

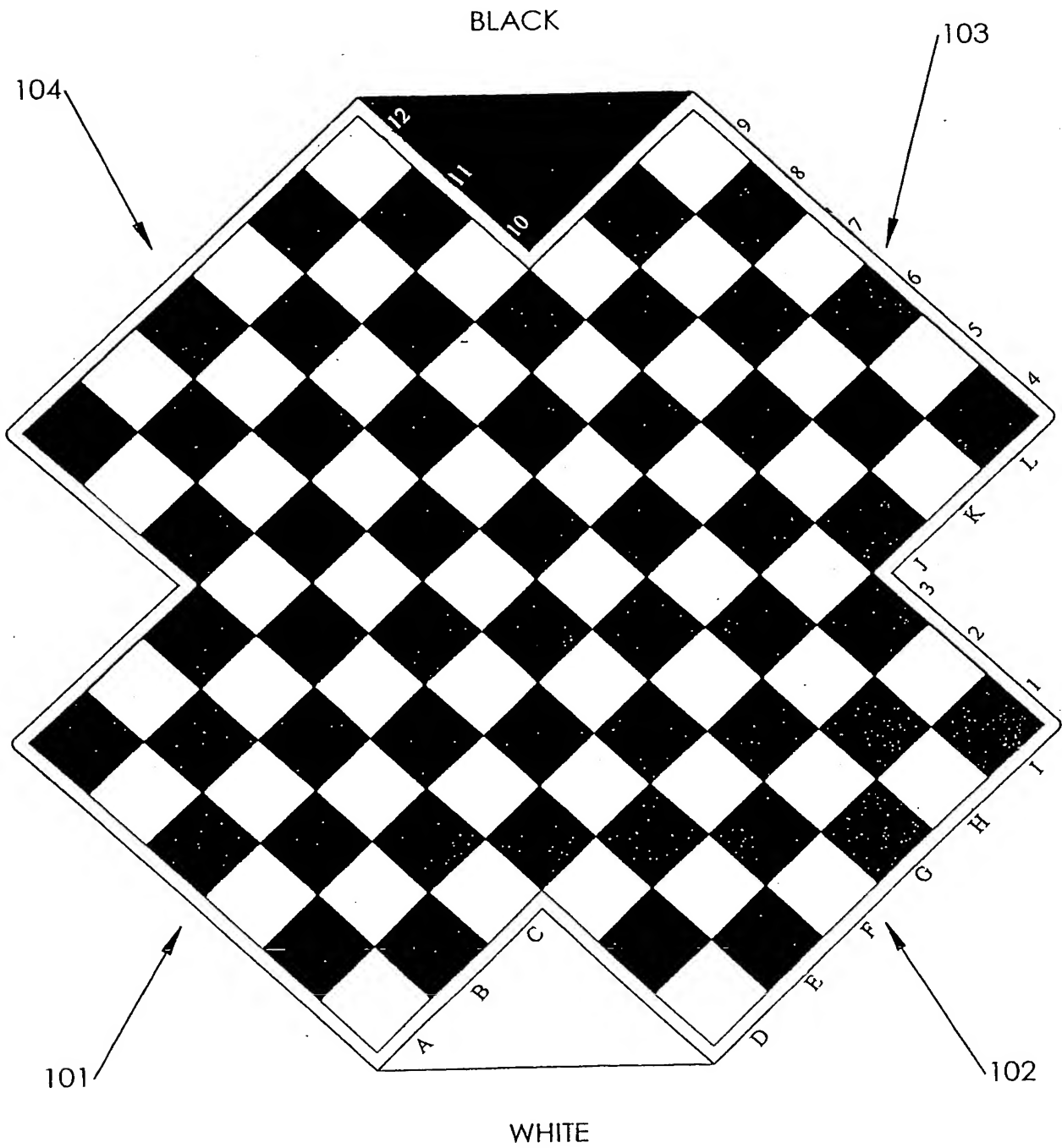


Fig. 20

26/26

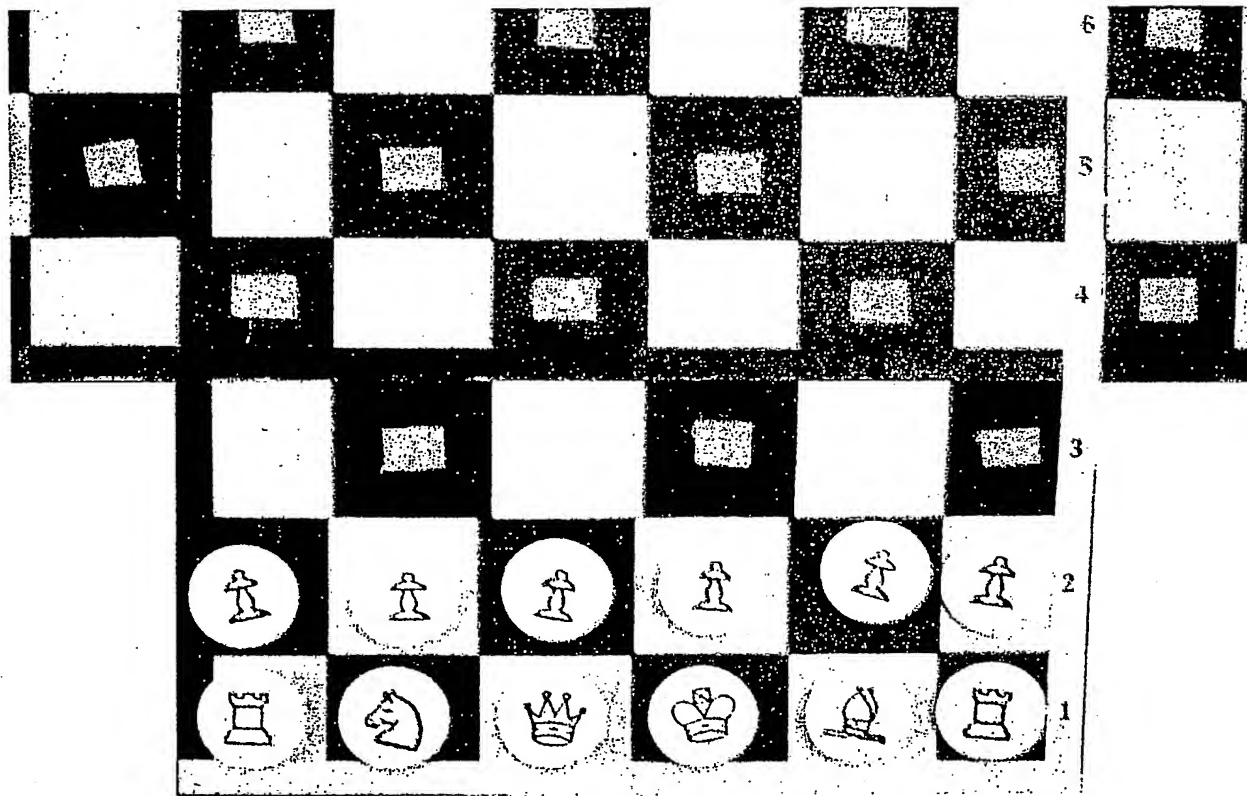


Fig. 21

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